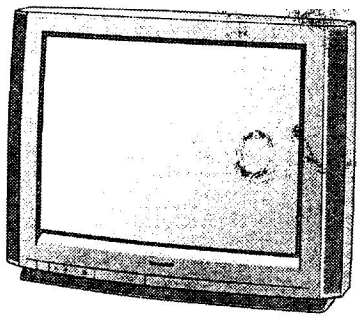
29RN5
29RN5RU
29RN8

SHARP

SERVICE MANUAL
维修手册

S38N829RN5///



COLOUR TELEVISION
彩色电视机
Chassis No. SS-1

MODELS 型 号
29RN5
29RN5RU
29RN8

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

为了用户安全起见(根据一些国家的安全规程的需要)，应将电视机保持于最初的状态，而且只能使用与指定物相同的部件。

FEATURE

- World Multi 21 system
- Auto Search Tuning System
- 100-CH Program Memory
- NICAM (B/G), IGR (B/G) STEREO SOUND (29RN5, 29RN5RU)
- NICAM (I) STEREO SOUND (29RN8)
- High Contrast Picture (Black Stretch Circuit)
  CATV (Hyper Band) Ready <Use Frequency Synthesizer Tuner>
- 7 Mode Surround System
- Picture Signal Improvement Circuit
- 6 Language OSD
- On Timer/ Sleep Timer/ Reminder Timer
- Picture Noise Reduction Circuit
- Blue Back Noise Mute
- Front & Rear AV-In/Out Terminals
- 1 Page TELE TEXT (29RN5,29RN5RU)

主要功能

- 21制式全世界通用型
- 自动寻台调谐系统
- 100频道程序存储器
- NICAM(B/G)制式、IGR(B/G)制式立体声功能(型号29RN5和29RN5RU)
- NICAM(I)制式立体声功能(型号29RN8)
- 高对比度图像(黑色脉冲展宽电路)
  有线闭路电路可并路状态(使用频率合成器调谐器)
- 七种状态环绕立体声系统
- 图像信号改善电路
- 六种语言在屏表示功能
- 开机定时器/睡眠定时器/提醒定时器
- 显像噪音衰减电路
- 蓝色背景噪声抑制功能
- 前面和后面声像输入/输出插孔
- 一页用户电视电报(型号29RN5和29RN5RU)

WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.

警 告

该电视机底盘的有些部分通电。当维修本机底盘时，请在电源线插头和电源插座之间使用隔离变压器。为了防止电击的危险，不要去拆下机盖。在里面的部件，不是使用者所能维修的，必须委托够格的维修人员来进行维修。

SHARP CORPORATION

CONTENTS

Page

- SPECIFICATIONS 3
- IMPORTANT SERVICE NOTES 4
- ADJUSTMENT PRECAUTIONS 5
- SERVICE ADJUSTMENT 13
- TROUBLE SHOOTING TABLE 26
- CHASSIS LAYOUT 33
- PRINTED WIRING BOARD ASSEMBLIES 37
- SCHEMATIC DIAGRAMS AND WAVEFORMS 43
- BLOCK DIAGRAM 65
- REPLACEMENT PARTS LIST 77

目　录

页数

- ●电路规格 3
- ●保养维修重要注意事项 4
- ●调整步骤 5
- ●保养调整 13
- ●故障检修流程图 26
- ●机芯底盘电路布置 33
- ●印刷电路板组件 37
- ●电路原理图和波形图 43
- ●电路方框图 65
- ●更换零件表 79

SPECIFICATIONS

Power Input		AC 110-240V, 50/60Hz (Auto)
Power Consumption		185W
Convergence		Self Convergence System
Focus		Bi-Potential, Uni-Potential Electroslatic
Sweep Deflection		Magnetic
Intermediate Frequency		
Picture IF Carrier		38.9 MHz
Sound IF Carrier		
6.5 MHz		32.4 MHz
6.0 MHz		32.9 MHz
5.5 MHz		33.4 MHz
4.5 MHz		34.4 MHz
Colour Sub-Carrier		
PAL/NTSC		34.47 MHz
SECAM		34.494/34.65 MHz
NTSC		35.32 MHz
Audio Power Output Rating		10 W x 2 (Max)
Speaker		
Size		10 cm Round x 2-pcs.
Voice Coil Impedance		8 ohm at 400 Hz
Aerial Input Inpedance		75 ohm Unbalanced
Receiving Channels		
PAL-B/G, SECAM-B/G		
VHF		E2 thru E12
UHF		E21 thru E69
CATV		X thru Z + 2, S1 thru S41
PAL-D/K, SECAM-D/K		
VHF		R1 thru R12, C1 thru C12
UHF		R21 thru R69, C13 thru C57
PAL-I, SECAM-I		
VHF	(IRELAND):	B thru J
UHF	(U.K.,H.K.):	21 thru 69
NTSC-M		
VHF	(US):	2 thru 13
	(JAPAN):	1 thru 12
UHF	(US):	14 thru 69
	(JAPAN):	13 thru 62
CATV	(US):	A-6 thru A-1, A thru W+29
	(JAPAN):	C13 thru C63
Receiving Frequency		
VHF Low		48.25 MHz thru 161.25 MHz
VHF High		168.25MHz thru 436.25 MHz
UHF		471.25 MHz thru 863.25 MHz

Specifications are subject to change without notice.

E 3

电路规格

电源	交流110～240V、50/60Hz(自动切换)
功率消耗	185W
聚焦	自聚焦系统
焦点	双电位，单电位静电焦点
扫描偏转	磁致偏转
中频	
图象中频载波	38.9MHz
声音中频载波	
6.5MHz	32.4MHz
6.0MHz	32.9MHz
5.5MHz	33.4MHz
4.5MHz	34.4MHz
色彩副载波	
PAL/NTSC制式	34.47MHz
SECAM制式	34.494/34.65MHz
NTSC制式	34.42MHz
音响额定输出功率	10W×2(最大)
扬声器	
尺寸	10cm圆型×2只
音圈阻抗	400Hz时,8Ω
天线输入阻抗	75Ω非平衡式
接收频道	
PAL-B/G、SECAM-B/G制式	
甚高频VHF	E2～E12频道
超高频UHF	E21～E69频道
有线电视CATV	X～Z+2频道, S1～S41频道
PAL-D/K、SECAM-D/K制式	
甚高频VHF	R1～R12频道, C1～C12频道
超高频UHF	R21～R69频道, C13～C57频道
PAL-I、SECAM-I制式	
甚高频VHF	（爱尔兰）：B～J频道
超高频UHF	（英国，香港）：21～69频道
NTSC-M制式	
甚高频VHF	（美国）：2～13频道, （日本）：1～12频道
超高频UHF	（美国）：14～69频道, （日本）：13～62频道
有线电视CATV	（美国）：A-6～A-1频道, A～W+29频道, （日本）：C13～C63频道
接收频率	
低域甚高频VHF	48.25MHz～161.25MHz
高域甚高频VHF	168.25MHz～463.25MHz
超高频UHF	471.25MHz～863.25MHz

上述规格变更之场合，恕不另行通知

C 3

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10k ohm Resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord ahould be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing many produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. When repairing the circuit, be sure not to increase the high voltage to more than 33.0 kV (at beam 0μA) for the set.
2. To keep the set in a normal operation, be sure to make it function on 30.0 ± 1.5kV (at beam 1500μA) in the case of the set. The set has been factory-Adjusted to the above mentioned high voltage.
   ∴If there is a possibility that the high voltage fluctuates as a result of repairs, never forget to check for such high voltage after the work.
3. Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-Ray radiation.

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective device such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators etc.

保养维修重要注意事项

本电视机的保养只得由专门技术人员进行。

关于高压系统和显象管的保养维修

对高压系统进行保养维修时，先于显象管管座金属部分与第二阳极引线间用绝缘线（诸如测试探针等）串接一只10KΩ的电阻器，以除去残留于高压系统中的静电。（之前，应从电源插座中拔出本机的电源引线插头。）

1. 本电视机显象管为整体内爆防护设计。
2. 为保证本电视机持久使用的安全，显象管的更换必须使用同型号者。
3. 搬移显象管时，不得倒持其颈部上提。
4. 拆装搬移显象管，必须先用布物等包护荧屏防碎玻璃，并且作完全放电处理后才能进行。

关于X射线

本电视机为无辐射的设计。因此，任何X射线均设计控制于最小绝对极限。然而，在发生故障或保障维修时，过长时间地暴露机芯内部加以放置之场合，便有可能在其近旁产生有害的X射线辐射影响。为此，务请遵循下述预防措施：

1. 维修调整本电视机内部电路时，切勿让其高压超过33.0kV(电子束电流为0μA时)。
2. 为保证本电视机的正常工作，务必保证其高压为30.0kV±1.5kV(电子束电流为1500μA时)的工作条件。该工作条件值在本电视机出厂前已经调试验收。
   ※本电视机一旦经维修调整，可能导致上述工作高压规定值发生偏动。因此，维修调整完毕，务请重新对其高压值进行确认检查。
3. 更换显象管时，不得使用非经认可的、不同厂家、不同型号的显象管，以免产生超过规定标准的X射线辐射的危险。

维修后归还之前

在把维修后的电视机归还给用户之前，务请进行下列的安全检查。

1. 检查电视机中的所有导线的绝缘包皮有无扭折破损之处，于机芯底板和其它金属部件之间有无他物夹杂。
2. 检查电视机中的所有非金属质的控制旋钮、绝缘鱼鳞纸，机壳后盖、调节器和仪器隔室盖罩或屏蔽，电阻—电容隔离网以及机械部件隔离器等保护绝缘装置、器材。

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: though the I²C bus control and in the conventional analog manner. The adjustments via the I²C bus control include preset-only items and variable data.

1. Calling the service mode by the microprocessor.

① Set the switch S1006 to the service mode position, and the microprocessor is put service mode. (Adjustment through the I²C bus control)
② Press the CH UP key on the remote controller to get ready to select the mode one by one.
③ Press the CH DOWN key on the remote controller to select the modes reversely one by one.
④ Using the VOLUME UP/ VOLUME DOWN key on the remote controller, the data can be modified.
⑤ Set the switch S1006 to the normal mode (OFF) position, and the microprocessor is put out of the service mode.

2. Factory Presettings.

① Set the switch S1006 to the service mode position and turn on the main power switch. Initial values are automatically preset only when a new E²PROM is used (judgement with the first 4 bytes).
② The initial data are preset as listed in page 8~12.
③ Make sure the data need modify or not (Initial data).

IMPORTANT

Note: Once the chassis has been put together and ready to be POWER ON for the FIRST TIME, make sure to set the switch S1006 to the service mode position first and then turn on the main power switch (See 2-(1) above).

调整时注意事项

本型号电视机由I²C总线控制与一般的模拟调节综合进行。I²C总线控制包括初始设定(预设)以及下述的变量数据项目的调整设定。

1)微处理机的保养调整状态的设定

①变S1006开关于保养调整状态位置，微处理机即处于保养调整状态(I²C总线控制调整状态)。
②触按遥控器上的频道上移键以顺序选择各种保养调整状态。
③触按遥控器上的频道下移键，以相反顺序选择各种保养调整状态。
④触按遥控器上的音量增加/减少键，可变换调整数据。
⑤取消保养调整状态时，变S1006开关(关闭侧)于正常状态位置即可。

2)出厂时的初始值(预设值)设定

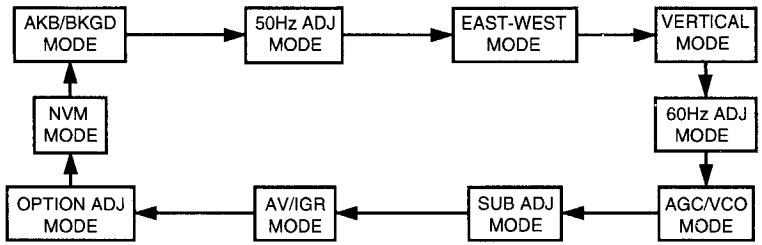
①变S1006开关于保养调整状态位置，打开主电源开关，即自动地设定初始值。
(仅限于EEPROM为新品时)
(根据最前头的4位字节而判断)
②初始值设定数据详见保养调整状态之项所列(参见第8页至12页)
③检查需不需要设定数据(初始设定数据)的改变。

重要

注意：在组装电视机底盘而作好打开电源的准备时，必须先变S1006开关于保养调整状态位置，然后再打开主电源开关(见2-(1)之项所述)。

■ SERVICE MODE

1.) In the Service Mode, Key is used to select the mode in the following order.

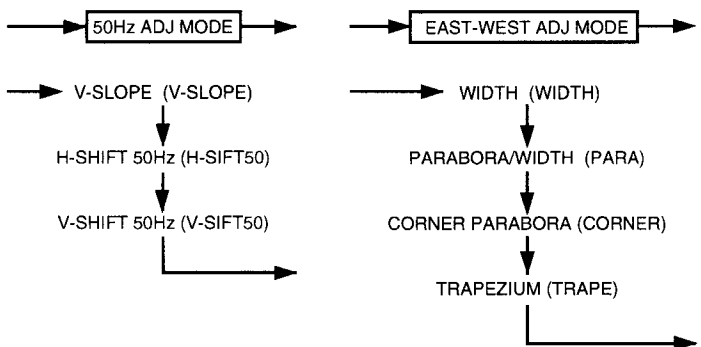


FORWARD: CH UP
REVERSE: CH DOWN

AKB/BKGD MODE

. WHITE POINT (G)
. WHITE POINT (B)
. AKB ON/OFF

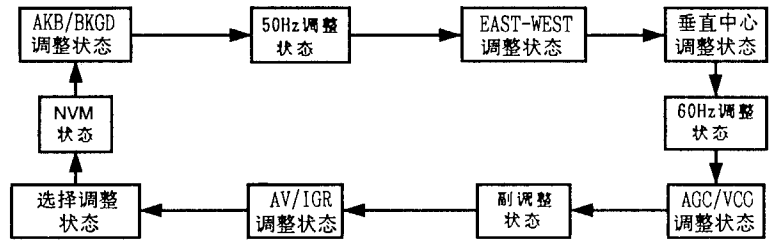
KEY	UP	DOWN
WHITE-POINT(G)	2 KEY	5 KEY
WHITE-POINT(B)	3 KEY	6 KEY
AKB	8 KEY	ON/OFF



In the direction of arrow: CH UP key
In the opposite direction : CH DOWN key
* The character in parentheses appear on the on-screen display.

■ 保养调整状态

1)在保养调整状态下，按下列要求触按相应键钮以选择所需调整状态。

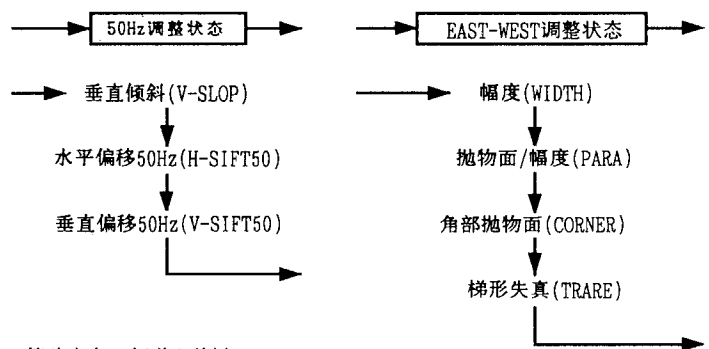


顺时针方向：频道上移
逆时针方向：频道下移

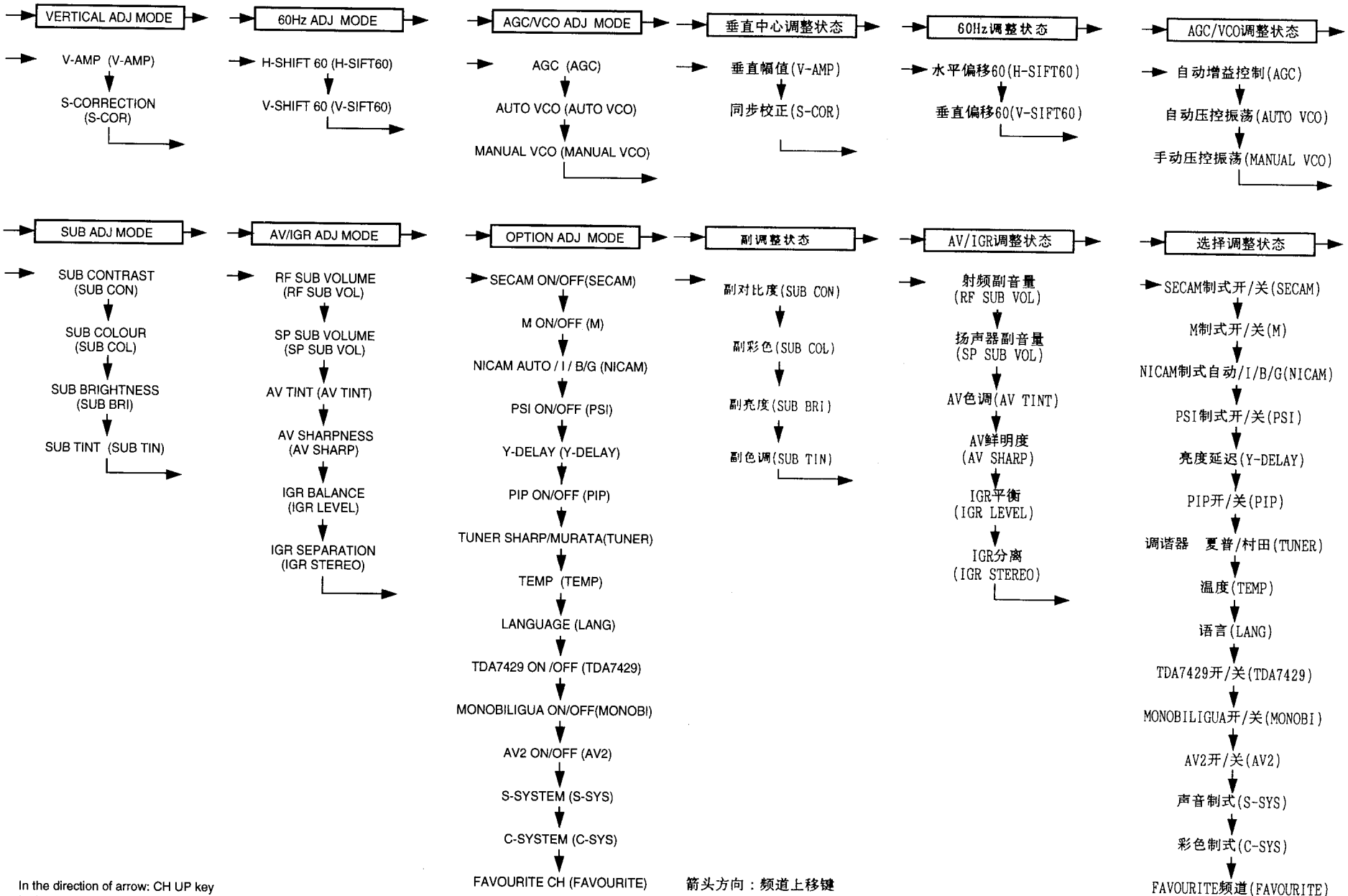
AKB/BKGD调整状态

・白色位置(绿色)
・白色位置(蓝色)
・AKB打开/关闭

键钮	上移	下移
白色位置(绿色)	2键	5键
白色位置(蓝色)	3键	6键
AKB	8键	打开/关闭



箭头方向：频道上移键
相反方向：频道下移键
＊在荧屏上显示出括号内的文字。



In the direction of arrow: CH UP key
In the opposite direction: CH DOWN key
* The character in parentheses appear on the on-screen display.

箭头方向：频道上移键
相反方向：频道下移键
＊在荧屏上显示出括号内的文字。

INITIAL SETTING OF E²PROM

E²PROM ITEMS	DATA LENGTH	INITIAL DATA	REMARK
AKB	ON/OFF	ON	
WHITE POINT (R)	0~ 63	32	
WHITE POINT (G)	0~ 63	32	
WHITE POINT (B)	0~ 63	32	
V-SLOPE	0~ 63	25	
H-SHIFT 50Hz	0~ 63	25(TV))	
V-SHIFT 50Hz	0~ 63	32 (TV)	
WIDTH	0~ 63	48	
PARA	0~ 63	36	
CORNER	0~ 63	28	
TRAP	0~ 63	32	
V-AMP	0~ 63	17	
S-COR	0~ 63	15	
H-SHIFT 60Hz	0~ 63	31(TV)	
V-SHIFT 60Hz	0~ 63	26(TV)	
AGC	0~ 63	15	
AUTO VCO	0~127	NG 55	
MANUAL VCO	0~127	55	
SUB-CONTRAST	0~ 63	63	
SUB COLOUR	0~ 63	19	
SUB BRIGHT	0~ 63	31	
SUB TINT	0~ 63	27	
RF SUB VOLUME	0~ 63	35	
SP SUB VOLUME	0~ 63	55	
AV TINT	0~ 63	00	
AV SHARP	0~ 63	00	
IGR LEVEL	0~10	05	
IGR STEREO	0~ 31	24	
SECAM	ON/OFF	ON	
M	ON/OFF	ON	
NICAM	AUTO/OFF	AUTO	
PSI	ON/OFF	ON	
Y-DELAY	0~ 15	00(TV), 00(AV)	
PIP	ON/OFF	OFF	
TUNER	SHARP/MURATA	SHARP	
TEMP	0~1	0	
LANG	ON/OFF	ON	
TDA7429	ON/OFF	ON	
MONOBI	ON/OFF	OFF	
AV2	ON/OFF	ON	
S-SYS	ON/OFF	ON	
C-SYS	ON/OFF	ON	
FAVOURITE CH	ON/OFF	OFF	
NVM	-	-	

EEPROM的初始值设定

EEPROM项目	数据可变范围	初始值	备注
AKB	打开/关闭	打开	
白色位置(红色)	0~ 63	32	
白色位置(绿色)	0~ 63	32	
白色位置(蓝色)	0~ 63	32	
垂直倾斜	0~ 63	25	
水平偏移50Hz	0~ 63	25(TV)	
垂直偏移50Hz	0~ 63	32 (TV)	
幅度	0~ 63	48	
抛物面	0~ 63	36	
角部抛物面	0~ 63	28	
梯形失真	0~ 63	32	
垂直幅值	0~ 63	17	
同步校正	0~ 63	15	
水平偏移60Hz	0~ 63	31(TV)	
垂直偏移60Hz	0~ 63	26(TV)	
自动增益控制	0~ 63	15	
自动压控振荡	0~127	NG 55	
手动压控振荡	0~127	55	
副对比度调节	0~ 63	63	
副彩色调节	0~ 63	19	
副亮度调节	0~ 63	31	
副色调调节	0~ 63	27	
射频副音量	0~ 63	35	
扬声器副音量	0~ 63	55	
AV色调	0~ 63	00	
AV鲜明度	0~ 63	00	
IGR平衡	0~10	05	
IGR分离	0~ 31	24	
SECAM制式	打开/关闭	打开	
M制式	打开/关闭	打开	
NICAM制式	自动/关闭	自动	
PSI制式	打开/关闭	打开	
亮度延迟	0~ 15	00(TV), 00(AV)	
PIP	打开/关闭	关闭	
调谐器	夏普/村田	夏普	
温度	0~1	0	
语言	打开/关闭	打开	
TDA7429	打开/关闭	打开	
MONOBI	打开/关闭	关闭	
AV2	打开/关闭	打开	
声音制式	打开/关闭	打开	
彩色制式	打开/关闭	打开	
FAVOURITE频道	打开/关闭	关闭	
NVM	-	-	

MCL1 & MCL2 CHANNEL SETTING

1). In service mode, After execute select POS 1, setting the following data in E²PROM.

MCL1 (R/C CODE =117)			MCL2 (R/C CODE=169)		
CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS
1	48.25	AUTO	1	46.25	AUTO
2	62.25	AUTO	2	64.25	AUTO
3	77.25	AUTO	3	86.25	AUTO
4	175.25	AUTO	4	95.25	AUTO
5	182.25	AUTO	5	138.25	AUTO
6	183.25	AUTO	6	175.25	AUTO
7	191.25	AUTO	7	182.25	AUTO
8	196.25	AUTO	8	189.25	AUTO
9	210.25	AUTO	9	196.25	AUTO
10	224.25	AUTO	10	209.25	AUTO
11	471.25	AUTO	11	216.25	AUTO
12	487.25	AUTO	12	SKIP OFF FREE	
13	503.25	AUTO	13	SKIP OFF FREE	
14	575.25	AUTO	14	SKIP OFF FREE	
15	599.25	AUTO	15	SKIP OFF FREE	
16	621.25	4.5 M	16	SKIP OFF FREE	
17	639.25	AUTO	17	SKIP OFF FREE	
18	703.25	AUTO	18	527.25	AUTO
19	735.25	AUTO	19	847.25	AUTO
20	767.25	AUTO	20	48.25	AUTO
21	815.25	AUTO	21	175.25	AUTO
22	855.25	AUTO	22	210.25	AUTO
23	855.25	AUTO	23	224.25	AUTO
24	55.25	4.5 M	24	575.25	AUTO
25	83.25	4.5 M	25	599.25	AUTO
26	183.25	4.5 M	26	767.25	AUTO
27	193.25	4.5 M	27	183.25	4.5 M
28	217.25	4.5 M	28	193.25	4.5 M
29	471.25	4.5 M	29	112.25	AUTO
30	477.25	4.5 M	30	168.25	AUTO
31	693.25	4.5 M	31	SKIP OFF FREE	
32	SKIP OFF FREE		32	294.25	AUTO
33	112.25	AUTO	33	463.25	AUTO
34	169.25	AUTO	34	174.95	AUTO
35	SKIP OFF FREE		35	175.55	AUTO
36	294.25	AUTO	36	SKIP OFF FREE	
37	463.25	AUTO	37	SKIP OFF FREE	
38	SKIP OFF FREE		38	SKIP OFF FREE	
39	647.25	AUTO	39	SKIP OFF FREE	

E 9

MCL1和MCL2的频道设定

1)在保养调整状态下选择POS1后，将下列数据设定于EEPROM之中。

MCL1(遥控器代码=117)			MCL2(遥控器代码=169)		
频道号	Fv(MHz)	声音制式	频道号	Fv(MHz)	声音制式
1	48.25	自动	1	46.25	自动
2	62.25	自动	2	64.25	自动
3	77.25	自动	3	86.25	自动
4	175.25	自动	4	95.25	自动
5	182.25	自动	5	138.25	自动
6	183.25	自动	6	175.25	自动
7	191.25	自动	7	182.25	自动
8	196.25	自动	8	189.25	自动
9	210.25	自动	9	196.25	自动
10	224.25	自动	10	209.25	自动
11	471.25	自动	11	216.25	自动
12	487.25	自动	12	跳跃关闭自由	
13	503.25	自动	13	跳跃关闭自由	
14	575.25	自动	14	跳跃关闭自由	
15	599.25	自动	15	跳跃关闭自由	
16	621.25	4.5 M	16	跳跃关闭自由	
17	639.25	自动	17	跳跃关闭自由	
18	703.25	自动	18	527.25	自动
19	735.25	自动	19	847.25	自动
20	767.25	自动	20	48.25	自动
21	815.25	自动	21	175.25	自动
22	855.25	自动	22	210.25	自动
23	855.25	自动	23	224.25	自动
24	55.25	4.5 M	24	575.25	自动
25	83.25	4.5 M	25	599.25	自动
26	183.25	4.5 M	26	767.25	自动
27	193.25	4.5 M	27	183.25	4.5 M
28	217.25	4.5 M	28	193.25	4.5 M
29	471.25	4.5 M	29	112.25	自动
30	477.25	4.5 M	30	168.25	自动
31	693.25	4.5 M	31	跳跃关闭自由	
32	跳跃关闭自由		32	294.25	自动
33	112.25	自动	33	463.25	自动
34	169.25	自动	34	174.95	自动
35	跳跃关闭自由		35	175.55	自动
36	294.25	自动	36	跳跃关闭自由	
37	463.25	自动	37	跳跃关闭自由	
38	跳跃关闭自由		38	跳跃关闭自由	
39	647.25	自动	39	跳跃关闭自由	

C 9

MCL1 (R/C CODE =117)			MCL2 (R/C CODE=169)		
CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS
40	663.25	AUTO	40	SKIP OFF FREE	
41	679.25	AUTO	41	SKIP OFF FREE	
42	174.95	AUTO	42	SKIP OFF FREE	
43	175.55	AUTO	43	SKIP OFF FREE	
44	SKIP OFF FREE		44	SKIP OFF FREE	
45	SKIP OFF FREE		45	SKIP OFF FREE	
↓	SKIP OFF FREE		↓	SKIP OFF FREE	
	SKIP OFF FREE			SKIP OFF FREE	
99	SKIP OFF FREE		99	SKIP OFF FREE	

MCL1(遥控器代码=117)			MCL2(遥控器代码=169)		
频道号	Fv(MHz)	声音制式	频道号	Fv(MHz)	声音制式
40	663.25	自动	40	跳跃关闭自由	
41	679.25	自动	41	跳跃关闭自由	
42	174.95	自动	42	跳跃关闭自由	
43	175.55	自动	43	跳跃关闭自由	
44	跳跃关闭自由		44	跳跃关闭自由	
45	跳跃关闭自由		45	跳跃关闭自由	
↓	跳跃关闭自由		↓	跳跃关闭自由	
	跳跃关闭自由			跳跃关闭自由	
99	跳跃关闭自由		99	跳跃关闭自由	

SHIPPING SETTING IX3007CEZZ

NO	ITEMS	SETTING 1	SETTING 2	SETTING 3	SETTING 4	SETTING 5
1	SKIP POS 0	ON	->	->	->	->
2	SKIP POS 1 ~99	OFF	->	->	->	->
3	AFT	ON	->	->	->	->
4	COLOUR SYSTEM	AUTO	->	->	->	->
5	SOUND SYSTEM	D/K	I	AUTO	AUTO	AUTO
6	IGR FORCE FM	OFF	->	->	->	->
7	IGR STEREO	STEREO	->	->	->	->
8	IGR BILINGUAL	MAIN	->	->	->	->
9	NICAM FORCE FM	OFF	->	->	->	->
10	NICAM BILINGUAL	M1	->	->	->	->
11	LAST POWER	ON	->	->	->	->
12	LAST TV/AV	TV	->	->	->	->
13	DIGIT	2 DIGIT	->	->	->	->
14	LANGUAGE	CHINESE	CHINESE	ENGLISH	ARABIC	RUSSIAN
15	BLUE BACK	ON	->	->	->	->
16	AV SELECT ON/OFF	OFF	->	->	->	->
17	AV SELECT STD/GAME	STD	->	->	->	->
18	LAST POSITION	1	->	->	->	->
19	LAST FB POSITION	1	->	->	->	->
20	VOLUME	0 (MIN)	->	->	->	->
21	BALANCE	0 (L,R)	->	->	->	->
22	BASS	0	->	->	->	->
23	MIDDLE	0	->	->	->	->
24	TREBLE	0	->	->	->	->
25	SURROUND	OFF	->	->	->	->
26	CONTRAST	63	->	->	->	->
27	COLOUR	31	->	->	->	->
28	BRIGHTNESS	31	->	->	->	->
29	TINT	31	->	->	->	->
30	SHARPNESS	31	->	->	->	->
31	TIMER	CLEAR	->	->	->	->
32	SAVE	OFF	->	->	->	->
33	PICTURE NR	OFF	->	->	->	->
34	INSET TINT	31	->	->	->	->
35	PIP DISPLAY POS	SE	->	->	->	->
36	PIP SIZE	L	->	->	->	->
37	PIP LAST POS	1	->	->	->	->
38	PIP LAST TV/AV	TV	->	->	->	->
39	FREEZE	OFF	->	->	->	->
40	MONORAL BILINGUAL	S 1	->	->	->	->

IX3007CEZZ 出厂时的初始值设定

编号	项目	设定1	设定2	设定3	设定4	设定5
1	跳跃位置0	打开	->	->	->	->
2	跳跃位置1～99	关闭	->	->	->	->
3	自动微调设定位置	打开	->	->	->	->
4	彩色制式设定位置	自动	->	->	->	->
5	声音制式设定位置	D/K	I	自动	自动	自动
6	IGR强制调频设定位置	关闭	->	->	->	->
7	IGR制式立体声设定位置	立体声	->	->	->	->
8	IGR制式两种语言设置位置	主要部分	->	->	->	->
9	NICAM制式强制调频设定位置	关闭	->	->	->	->
10	NICAM制式两种语言设定位置	M1	->	->	->	->
11	最后电源开关位置	打开	->	->	->	->
12	最后电视/声像设定位置	TV	->	->	->	->
13	数字设定位置	2位	->	->	->	->
14	语言选择位置	中文	中文	英文	阿拉伯文	俄文
15	蓝色背景设定位置	打开	->	->	->	->
16	声像选择开关位置	关闭	->	->	->	->
17	声像选择位置 标准/游戏	STD	->	->	->	->
18	最后设定位置	1	->	->	->	->
19	最后FB设定位置	1	->	->	->	->
20	音量设定位置	0 (MIN)	->	->	->	->
21	平衡设定位置	0 (L,R)	->	->	->	->
22	低音设定位置	0	->	->	->	->
23	中音设定位置	0	->	->	->	->
24	高音设定位置	0	->	->	->	->
25	环绕立体声设定位置	关闭	->	->	->	->
26	对比度设定位置	63	->	->	->	->
27	彩色设定位置	31	->	->	->	->
28	亮度设定位置	31	->	->	->	->
29	色度设定位置	31	->	->	->	->
30	鲜明度设定位置	31	->	->	->	->
31	定时器设定位置	取消	->	->	->	->
32	节电设定位置	关闭	->	->	->	->
33	图像NR设定位置	关闭	->	->	->	->
34	副荧屏色调设定位置	31	->	->	->	->
35	PIP显示屏位置	SE	->	->	->	->
36	PIP尺寸设定位置	L	->	->	->	->
37	PIP最后设定位置	1	->	->	->	->
38	PIP最后电视/声像设定位置	TV	->	->	->	->
39	保持位置	关闭	->	->	->	->
40	单声两种语言设定位置	S 1	->	->	->	->

FACTORY SETTING BY MODEL

(Reference: Geomagnetism adjustment)

SUFFIX AT MODEL NO.	GEOMAGNETISM (H,V)nT	BACKGROUND	LANG.	S-SYS
B	30,000 20,000	12300K	CHINESE	I
C (SINGAPORE)	-10,000 40,000	12300K	ENGLISH	AUTO
J	45,000 20,000	7500K	RUSSIAN	AUTO
Z	-50,000 20,000	12300K	ENGLISH	AUTO

*FOR ALL 29" AND 25" RN SERIES MODELS
ONCE FINISH FACTORY SETTING, PRESS "PICTURE NR" KEY TWICE TO SWITCH "PICTURE NR" FUNCTION "ON".

各型号的出厂时的设定值

(参考：磁场调整)

型号尾标	磁场(水平、垂直)nT	背景	语言	S-SYS
B	30,000 20,000	12300K	中文	I
C(新加坡)	-10,000 40,000	12300K	英文	自动
J	45,000 20,000	7500K	俄文	自动
Z	-50,000 20,000	12300K	英文	自动

*有关型号“29”和“25”RU的所有系列产品
出厂时的设定结束后,触按“PICTURE NR”键两次,以起动“PICTURE NR”功能。

SERVICE ADJUSTMENT

■ VCO, AND AGC ADJUSTMENT

1. VCO ADJUSTMENT (I²C BUS CONTROL)

1. Receive E-10CH 210.25MHz "PAL COLOUR BAR" signal.
   Signal Strength: 60 ~ 70 dB
2. Call "AUTO VCO" in SERVICE mode. If the Channel frequency displays on screen is 210.20MHz, skip 3, 4 & 5 steps.
3. Press FUNCTION button to call "DIRECT FREQ IN".
4. Push "2", "1", "0", "2", "0".
5. Then Press FUNCTION again.
6. Press Volume UP to run "AUTO VCO". Once finishing, "OK" message display on screen.

2. AGC ADJUSTMENT (I²C BUS CONTROL)

1. Receive E-12CH (PAL COLOR BAR) signal.
   Signal strength : 57 ± 1 dB (75ohm open)
2. Connect the oscilloscope to P201 (Tuner's AGC Terminal) as shown in figure 1.
3. Call "AGC" in SERVICE mode.
4. Increase or decrease "AGC" by using Volume so that obtain the highest Voltage.
5. Press Volume slowly in the opposite direction until the voltage drops 0.1V(29RN5) or 0.3V(29RN8) lower than the highest level.
6. Change the antenna input signal to 63 ~ 67dBμV, and make sure there is no noise.
7. Turn up the input signal to 90 ~ 95 dBμV to be sure that there is no cross modulation beat.

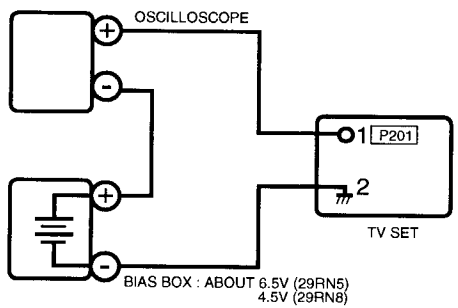


Figure 1

保养调整

■ 压控振荡VCO和自动增益控制AGC的调整

1.压控振荡VCO的调整(I²C总线控制)

1.接收E-10频道210.25MHz "PAL制式彩条" 信号。
信号强度：60～70dB
2.在保养调整状态下呼出 "AUTO VCO" 项目。
荧屏上显示的频率为210.20MHz时,可省略下记3、4和5的步骤。
3.触按FUNCTION键钮以呼出 "DIRECT FREQ IN" 项目。
4.触按 "2"、"1"、"0"、"2"、"0" 键钮。
5.然后再触按FUNCTION键钮。
6.触按音量增加键钮,以执行 "AUTO VCD" 项目。
执行结束后，荧屏上显示出 "OK" 表示。

2.自动增益控制AGC的调整(I²C总线控制)

1.接收E-12频道(PAL制式彩条)信号。
信号强度：57±1dB(端接75Ω电阻)
2.按图1所示要求接示波器于P201(调谐器的AGC端子)。
3.在保养调整状态下呼出 "AGC" 项目。
4.用音量增加/减少键钮来增加或减少 "AGC数据",以获得最大电压读数。
5.相反方向缓慢地触按音量键钮,直至电压读数调至最大值—0.1V(型号29RN5)或—0.3V(型号29RN8)之程度为止。
6.调节天线输入信号强度为63～67dBμV,确认无噪声出现。
7.再调节天线输入信号强度为90～95dBμV,确认无交扰调制差拍出现。

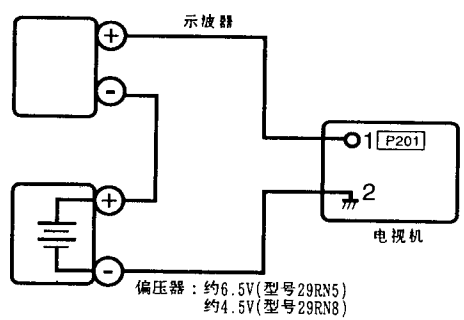


图1

■ SOUND ADJUSTMENT

1. RF SUB VOLUME (I²C BUS CONTROL)

1. Receive "PAL COLOUR BAR" signal.
   Audio signal: 400 Hz, 100% modulated (50kHz dev.)
2. Connect the Oscilloscope to the Audio Out (L or R) terminal. (Terminate with 10k ohm impendence).
3. Call the "RF SUB VOL" in SERVICE mode.
4. Increase or decrease "RF SUB VOL" by using Volume UP/DOWN key, so that the 400Hz sine wave be 1.76Vp-p.
   Tolerence: 1.76 Vp-p ± 0.10 Vp-p.

2. SP SUB VOLUME (I²C BUS CONTROL)

1. Receive "COLOUR BAR" signal.
   Audio signal: 400Hz, 100% modulation. (50kHz dev.)
2. Connect Dummy load* to P3304.
3. Connect VTVM's probe to the P3304.
   (1 R, 2 GND, 3 GND, 4 L, 5 NIL, 6 NIL 7 NIL 8 NIL)
4. Call the "SP SUB VOL" in the SERVICE mode.
5. Increase or decrease "SP SUB VOL" by using Volume UP/DOWN key, so that the VTVM should read the value*.

Note:*For 29RN5 & 29RN8:Terminated 8 ohm to get 8.50V ± 0.1V

3. NOISE MUTE CHECKING

1. Receive the 400Hz modulated signal.
2. Turn up the volume control to Maximum and make sure the sound is heard from the speakers. Then put the unit in the no-signal state.
3. Be sure that the sound mute is effective.
4. Finally turn down the volume control to minimum.

■ 声音制式的调整

1.射频RF副音量(I²C总线控制)

1.接收“PAL制式彩条”信号。
音频信号：400Hz 、100%调制(50kHz偏转)
2.接示波器于音频输出端(左或右)。(端接10kΩ电阻)。
3.在保养调整状态下呼出“RF SUB VOL”项目。
4.用音量增加/减少键钮来增加或减少“RF SUB VOL数据”，使400Hz正弦波幅值达至1.76Vp-p的规定要求。
调整误差：1.76Vp-p ± 0.10Vp-p

2.扬声器SP副音量(I²C总线控制)

1.接收“彩条”信号。
音频信号：400Hz 、100%调制(50kHz偏转)
2.接假负载电阻*于P3304。
3.接电子管电压计(VTVM)的探针于P3304。
(1R、2GND、3GND、4L、5NIL、6NIL、7NIL、8NIL)
4.在保养调整状态下呼出“SP SUB VOL”项目。
5.用音量增加/减少键钮来增加或减少“SP SUB VOL数据”，使VTVM所测读数达至下列所示的规定电压值*。
注意：型号29RN5和29RN8*;端接8Ω电阻，以获得8.50 ± 0.1V电压。

3.消音功能的检查

1.接收400Hz调制信号。
2.设音量控制于最大位置，接着检查扬声器的声音输出，然后，设电视机于无信号接收状态。
3.此时，检查消音功能是否动作。
4.最后，设音量控制于最小位置。

■ PURITY ADJUSTMENT

1. PURITY ADJ.

1. Receive the GREEN -ONLY signal. Adjust the beam current to ~800μA.
2. Orient the raster rotation to 0 eastward.
3. Degauss the CRT enough with the degausing coil.

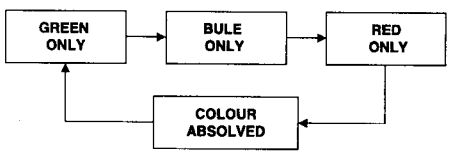
Note: Follow the Job Instruction Sheet (or Page 9) to adjust the magnetic field.
Vertical Bv: +0.030 mT (0.30 gauss)
Horizontal Bh: +0.020 mT (0.20 gauss)

4. Maintain the purity magnet at the zero magnetic field and keep the static convergence roughly adjusted.
5. Observe the points a, b, as shown in Fig.2 - 1 through the microscope. Adjust the landings to A rank requirement.
6. Tighten up the deflection coil screws.
   Tightening torque : 108N ± 20N (11Kgf ± 2Kgf)
7. Make sure the CRT corners landing meet the A rank requirements. If not, stick the magnet sheet to correct it.

Note:This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 1000μA.

Note: Set the service mode by service switch (S 1006) then press factory process R/C RGB key to change to green only.

* For the following colour press colour key to change.



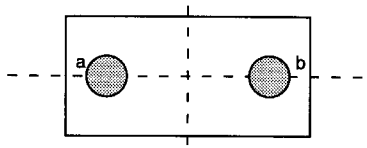


Figure 2-1

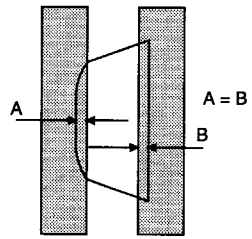


Figure 2-2. Rank A (On the right of CRT)

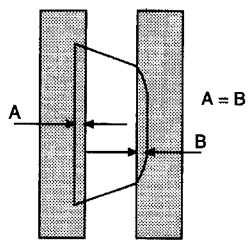


Figure 2-3. Rank A (On the left of CRT)

Figure 2

Text Key "R.G.Cy" Key can be directly use to change to other colours screen.

■ 色彩纯度的调整

1.色彩纯度的调整

1.接收绿单色信号。调电子束电流于800μA。
2.将光栅偏转角度调节至0，并保持显像管面朝东方。
3.通过消磁线圈对阴极显像管CRT作完全消磁处理。

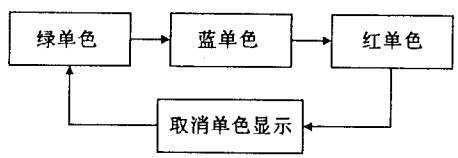
注意：按生产指导说明书(或第9页)的内容调整磁场磁势。
垂直Bv：+0.030mT(0.30高斯)
水平Bh：+0.020mT(0.20高斯)

4.调节色彩纯度磁铁，使其磁场磁势为0，然后对静聚焦度进行粗调。
5.用放大显示镜观察图2-1所示的a点和b点。调节色彩纯度磁铁，使其着屏点位置达至A级的规定要求。
6.紧固偏转线圈的螺丝。
紧固扭矩：108N ± 20N(11kgf ± 2kgf)
7.检查阴极显像管CRT角部的着屏点位置是否符合A级的规定要求。如果不符合规定要求，则用一磁铁片加以校正。

注意：作此项调整前，先用大于1000μA的电子束电流预热阴极显像管CRT30分钟以上。

注意：用保养设定开关(S1006)设电视机于保养调整状态。然后触按遥控器上的RGB(红绿蓝三色)键钮(工厂处理键钮)，使荧屏变为单绿色彩。

*触按色彩键钮，荧屏色彩如下依次循环变化：



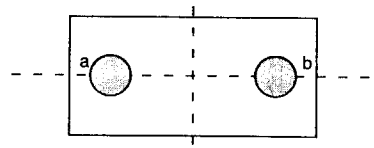


图2-1

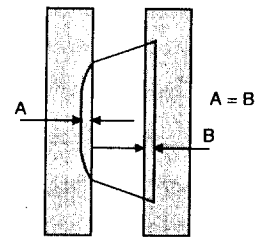


图2-2 A级着屏点(CRT右侧)

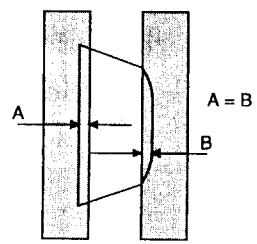


图2-3 A级着屏点(CRT左侧)

图2

可通过TEXT键钮和“R(红)、G(绿)、Cy(青)”键钮的触按直接转换为各单色显示的荧屏。

■ CONVERGENCE ADJUSTMENT

1. CONVERGENCE ADJ.(To be done after the purity adjustment.)

1. Receive the "Crosshatch Pattern" signal.
2. Using the remote controller, call NORMAL mode.

Static convergence

1. Turn the 4 - pole magnet to a proper opening angle in order to superpose the blue and red colours.
2. Turn the 6 - pole magnet to a proper opening angle in order to superpose the green colour over the blue and red colours.

Dynamic convergence

1. Adjust the convergence on the fringes of the screen in the following steps.
   a) Fig. - a : Drive the wedge at point "a" and swing the deflection coil upward.
   b) Fig. - b : Drive the wedge at point "a" and "b" and swing the deflection coil downward.
   c) Fig. - c : Drive the "c" wedge deeper and swing the deflection coil rightward.
   d) Fig. - d : Drive the "b" wedge deeper and swing the deflection coil leftward.
2. Fix all the wedges on the CRT and apply glass tape over them.
3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity 4 - pole, 6 - pole magnets) and magnet unit lock screw.

Finally received the Red - only and Blue - only signals to make sure there is no other colours on the screen.

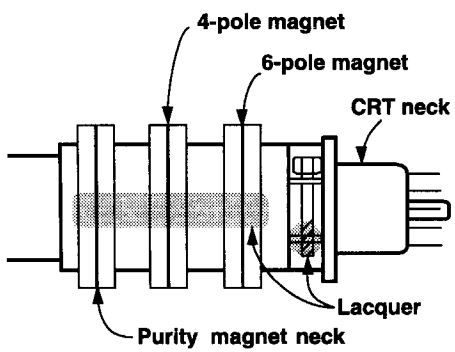


Figure 4

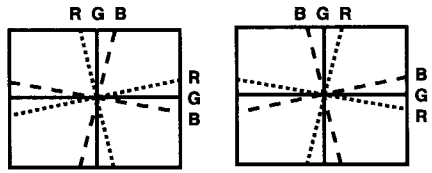


Fig. a

Fig. b

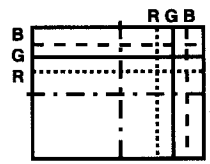


Fig. c

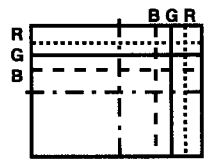


Fig. d

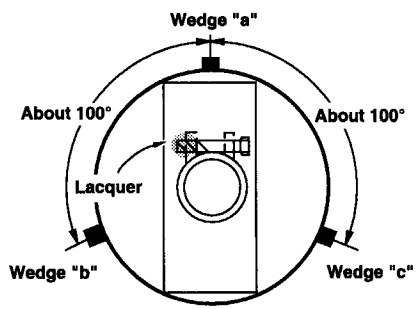


Figure 3

■ 画面聚焦度的调整

1.画面聚焦度的调整(此项调整必须在色彩纯度的调整完毕后进行。)

1.接收“棋盘格测试图案”信号。

2.通过遥控器呼出标准图像状态。

静聚焦度的调整：

1.调节4极聚焦磁铁的开角与转角，使蓝色线条与红色线条重叠。

2.调节6极聚焦磁铁的开角与转角，使绿色线条再与蓝、红色重叠线条重叠。

动聚焦度的调整：

1.按下述要求调节荧屏周边的聚焦度。

a)图a.所示的聚焦调节：
通过插入调整楔“a”以及向上摆动偏转线圈加以调节。

b)图b.所示的聚焦调节：
通过插入调整楔“a”和“b”以及向下摆动偏转线圈加以调节。

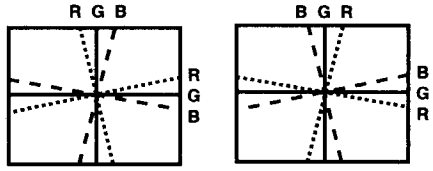
c)图c.所示的聚焦调节：
通过深插调整楔“c”以及向右摆动偏转线圈加以调节。

d)图d.所示的聚焦调节：
通过深插调整楔“b”以及向左摆动偏转线圈加以调节。

2.保持CRT之上三支调整楔的调节完了后的位置，用玻璃胶带固定之。

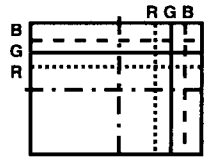
3.加封固胶于偏转线圈的固定螺丝、磁铁装置(由色彩纯度调节磁铁、4极聚焦磁铁以及6极聚焦磁铁构成)以及磁铁装置的固定螺丝，封固之。

上记调整结束后，接收单色(红色/蓝色)信号，以及检查在荧屏上有无呈现其它颜色。

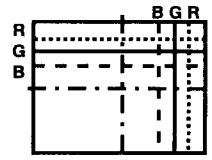


图a

图b



图c



图d

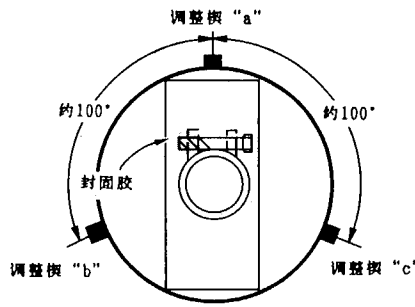


图3

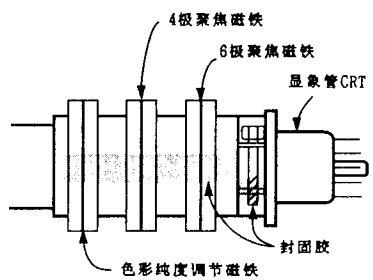


图4

■ CUT OFF , WHITE BALANCE, SUB - BRIGHT, & FOCUS ADJUSTMENT.

1. CRT Cut - OFF ADJ. (I²C BUS CONTROL)

1. Switch TV to VIDEO MODE, Blue Back: OFF, Without Video Signal.
2. Connect the oscilloscope to TP851.
   (Use a 10:1 probe)
   Range: 500mV/div
   Sweep Time: 5ms/div
   Press "DC" mode
3. Using the remote controller, call NORMAL mode.
4. Adjust Screen VR so that the tip of signal reach 2.5Vdc ± 0.1Vdc.

* Before adjustment , make sure that this adjustment with the initial bus data "White Point (G)" & "White Point (B)" are 32.

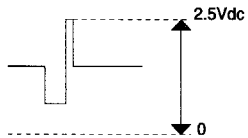


Figure 5

2. White Balance ADJ. (I²C BUS CONTROL)

1. Receive the MONOSCOPE PATTERN signal.
2. Call the "BKGD" in SERVICE mode.
3. Adjust "White Point (G)", "White Point (B)" data to have a colour temperature of 12300k (White) Note.

Note : White Point (G) UP " 2 " KEY DOWN " 5 " KEY
White Point (B) UP " 3 " KEY DOWN " 6 " KEY
As the above data can be UP / DOWN.
#12300k x=272 y=275
#7500k x=300 y=310 (Minolta Colour Analyzer CA-100)

3. SUB- BRIGHT ADJ. (I²C BUS CONTROL)

1. Receive the Crosshatch pattern Signal.
2. Call the "SUB BRI" in SERVICE mode.
3. Adjust the "SUB-BRI" bus data, so that the No. 2 line inside the window area will disappear.

Note: Before starting this adjustment, warm up the unit for 30 minutes or longer at a beam current of 1300 ~ 1500μA.

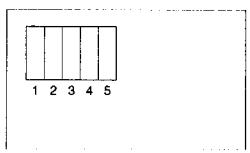


Figure 6

4. BEAM CURRENT CHECK

1. Receive the "Monoscope Pattern" Signal.
2. Press P-NORMAL key.
3. Connect the DC Milliammeter between TP601 (-) and TP602 (+). (Full Scale: 3.0 mA Range).
4. Beam current Must be 1400 ± 100μA.

5. FOCUS ADJ.

1. Receive the MONOSCOPE PATTERN signal.
2. Using the remote control, call NORMAL mode.
3. Adjust the FOCUS control so that the shaded area of screen be in optimal focus.

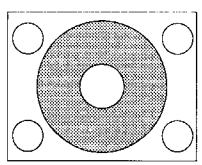


Figure 7

■ CRT截止、白色平衡、副亮度和焦点的调整

1.CRT截止的调整(I²C总线控制)

1.改变TV状态为VIDEO状态，蓝色背景：OFF，无视频信号。
2.接示波器于TP851。
(使用10：1的探针为宜)
测试范围：500m V/段
扫频时间：5毫秒/段
选择“DC"状态
3.通过遥控器呼出标准图像状态。
4.调节荧屏VR，使信号波形的顶部幅值达至2.5Vdc ± 0.1Vdc的规定要求。

*在作此项调整之前，必须先将初始值的总线控制数据处于“White Point(G)和White Point(B)”，然后再检查其设定值是否为32。

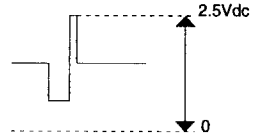


图5

2.白色平衡的调整(I²C总线控制)

1.接收单像管图案信号。
2.在保养状态下呼出“BKGD”项目。
3.调节“White Point(G)”和“White Point(B)”的数据，以获得色温为12300K的白色。
注意：白色位置(绿色)的数据上移时：“2”键钮，下移时：“5”键钮
白色位置(蓝色)的数据上移时：“3”键钮，下移时：“6”键钮
可进行上记数据的上移或下移工作。
#12300K X=272 Y=275
#75300K X=300 Y=310 (美能达色温计CA-100所测)

3.副亮度的调整(I²C总线控制)

1.接收棋盘格测试图案信号。
2.在保养调整状态下呼出“SUB BRI"项目。
3.调节“SUB BRI”总线数据，使窗口内侧的第2线条消失。
注意：作此项调整之前，必须先用1300～1500μA的电子束电流预热阴极显像管30分钟以上。

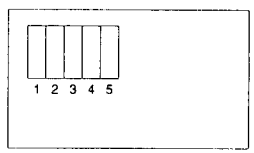


图6

4.电子束电流的检查

1.接收“单像管图案”信号。
2.触按标准图像键钮。
3.接直流毫安计于TP601(-)与TP602(+)之间。(测试范围：30mA)
4.必须将电子束电流调至1400 ± 100μA。

5.焦点的调整

1.接收单像管图案信号。
2.通过遥控器呼出标准图像状态。
3.调节焦点控制旋钮，使荧屏上的阴影部分达至最理想的焦点程度。

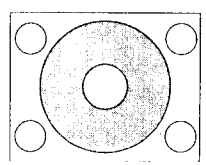


图7

■ HORIZONTAL, VERTICAL, DEFLECTION LOOP ADJUSTMENT.

1. V-SLOPE ADJ. (I²C BUS CONTROL)

1. Receive the "MONOSCOPE PATTERN" signal.
2. Call the "V-SLOPE" in SERVICE mode.
3. Increase or decrease "V-SLOPE" by using Volume key so that the center line of picture matches with the edge of blanking line.

Note: SPEC: ± 1 SCANNING LINE

2. V-SHIFT 50 AND V- SHIFT 60 (I²C BUS CONTROL)

1. Receive the 50Hz "Monoscope Pattern" signal.
2. Call the "V-SIFT 50" in SERVICE mode.
3. Increase or decrease the "V-SIFT 50" by using Volume UP/DOWN key to adjust or align the screen center with the CRT's geometrical center.
4. Receive the 60 Hz "Monoscope Pattern" signal.
5. Call the "V-SIFT 60" in SERVICE mode.
6. Increase or decrease the "V-SIFT 60" by using Volume UP/DOWN key to adjust or align the screen center with the CRT's geometrical center.

Note: SPEC: ± 2mm

3. V-AMP (I²C BUS CONTROL)

1. Receive the "MONOSCOPE PATTERN" signal.
2. Call the "V-AMP" in SERVICE mode.
3. Increase or decrease the "V-AMP" by using the volume UP/DOWN key to adjust the Vertical size until it is 8.5% overscan.

Note: OVER SCAN: 8.5% ± 1.5 %

4. H-SHIFT 50 AND H-SHIFT 60 (I²C BUS CONTROL)

1. Receive the 50Hz "Monoscope Pattern" signal.
2. Call the "H-SIFT 50" IN SERVICE MODE.
3. Increase or decrease the "H-SIFT 50" by using the Volume UP/DOWN key to adjust or align the left, and right sides of screen are equal overscan size.
4. Receive the 60Hz "Monoscope Pattern" signal.
5. Call the "H-SIFT 60" IN SERVICE MODE.
6. Increase or decrease the "H-SIFT 60" by using the Volume UP/DOWN key to adjust or align the left and right sides of screen are equal overscan size.

Note: SPEC: ± 2mm

5. WIDTH (EW) (I²C BUS CONTROL)

1. Receive the "MONOSCOPE PATTERN" signal.
2. Call the "WIDTH" in SERVICE mode.
3. Increase or decrease the "WIDTH" by using Volume UP/DOWN key until the H-SIZE overscan is 8.5%.

Note: SPEC: 8.5 % ± 1.5%

■ 水平、垂直同步电路和偏转环形电路的调整

1.垂直倾斜的调整（I²C总线控制）
1.接收“单像管图案”信号。
2.在保养调整状态下呼出“V-SLOP"项目。
3.用音量增加/减少键钮来增加或减少“V-SLOP”数据，使图像的中央线条与消隐线条边缘相配。
注意：规定要求：±1扫描线条

2.垂直偏移50和垂直偏移60的调整(I²C总线控制)
1.接收50Hz“单像管图案”信号。
2.在保养调整状态下呼出“V-SIFT50"项目。
3.用音量增加/减少键钮来增加或减少“V-SIFT50”数据，使荧屏中心与CRT的几何中心对齐而进行调整。
4.接收60Hz“单像管图案”信号。
5.在保养调整状态下呼出“V-SIFT60”项目。
6.用音量增加/减少键钮来增加或减少“V-SIFT60”数据，使荧屏中心与CRT的几何中心对齐而进行调整。
注意：规定要求：±2mm

3.垂直幅值的调整(I²C总线控制)
1.接收“单像管图案”信号。
2.在保养调整状态下呼出“V-AMP”项目。
3.用音量增加/减少键钮来增加或减少“V-AMP”数据而进行垂直尺寸的调整，直至获得8.5%的过扫描为止。
注意：过扫描：8.5%±1.5%

4.水平偏移50和水平偏移60的调整(I²C总线控制)
1.接收50Hz“单像管图案”信号。
2.在保养调整状态下呼出“H-SIFT50”项目。
3.用音量增加/减少键钮来增加或减少“H-SIFT50”数据而进行调整，使荧屏的左右端与过扫描的幅度一致。
4.接收60Hz“单像管图案”信号。
5.在保养调整状态下呼出“H-SIFT60”项目。
6.用音量增加/减少键钮来增加或减少“H-SIFT60”数据而进行调整，使荧屏的左右端与过扫描的幅度一致。
注意：规定要求：±2mm

5.幅度(EW)的调整(I²C总线控制)
1.接收“单像管图案”信号。
2.在保养调整状态下呼出“WIDTH”项目。
3.用音量增加/减少键钮来增加或减少“WIDTH”数据，直至水平尺寸的过扫描达至8.5%为止。
注意：规定要求：8.5%±1.5%

■ HORIZONTAL, VERTICAL, DEFLECTION LOOP ADJUSTMENT. (Continued)

6. PARA (EW) (I²C BUS CONTROL)

1. Receive the "CROSSHATCH PATTERN" signal.
2. Call the "PARA" in SERVICE mode.
3. Increase or decrease the "PARA" by using Volume UP/DOWN key until the Vertical lines are straight. (2nd Line of both L & R) (This adjustment couldn't adjust the top and bottom of the lines).

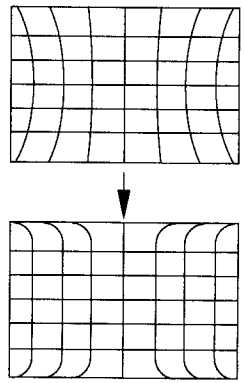


Figure 8

7. CORNER (EW) (I²C BUS CONTROL)

1. Receive the "CROSSHATCH PATTERN" signal.
2. Call the "CORNER" in SERVICE mode.
3. Increase or decrease the "CORNER" by using Volume UP/DOWN key until the vertical lines are straight at the top and bottom of the lines. (2nd Line of both L & R)
4. Adjustment with CORNER: STRAIGHTEN THE TOP AND BOTTOM OF THE VERTICAL LINES AFTER PARA ADJUSTMENT.

8. TRAPE (EW) (I²C BUS CONTROL)

1. Receive "CROSSHATCH PATTERN" signal.
2. Call the "TRAPE" in SERVICE mode.
3. Increase or decrease the "TRAPE" by using the Volume UP/DOWN key until all the vertical lines are straight and aren't slanting to the left or right.
4. Adjustment with TRAPE: THIS ADJUSTMENT IS INDEPENDENT UPON OTHER ADJUSTMENT.

Note: Trapezoid: 1.5% Max

9. S-COR (I²C BUS CONTROL)

1. Receive the "CROSSHATCH PATTERN" signal.
2. Call the "S-COR" IN SERVICE mode.
3. Increase or decrease the "S-COR" by using the Volume UP/DOWN key to get the best LINEARITY.
4. Adjustment with S-COR: OVERALL VERTICAL LINEARITY.
5. Readjust the "V-AMP" to make the overscan 8.5%. Readjust or align "V-SIFT" to match the screen center with the CRT's geometrical center.

Note: V-LINEARITY: ± 5% Max

■ 水平、垂直同步电路和偏转环形电路的调整（接上页）

6.抛物面(EW)的调整(I²C总线控制)

1.接收“棋盘格测试图案”信号。
2.在保养调整状态下呼出“PARA"项目。
3.用音量增加/减少键钮来增加或减少“PARA”数据，直至垂直线成一直线为止。(左右两端的第2条垂直线条)(此项调整不能调整顶部和底部的线条)

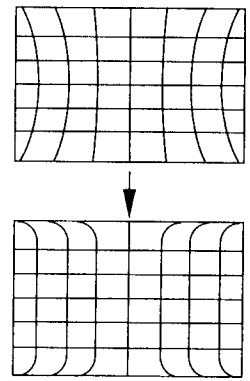


图8

7.角部(EW)的调整(I²C总线控制)

1.接收“棋盘格测试图案”信号。
2.在保养调整状态下呼出“CORNER”项目。
3.用音量增加/减少键钮来增加或减少“CORNER"数据，直至顶部和底部的垂直线条成一直线为止。(左右两端的第2条垂直线条)
4.此项调整必须在抛物面的调整完毕后进行。

8.梯形失真(EW)的调整(I²C总线控制)

1.接收“棋盘格测试图案”信号。
2.在保养调整状态下呼出“TRAPE”项目。
3.用音量增加/减少键钮来增加或减少“TRAPE”数据，使所有的垂直线条成一直线，并使左右两端处没有倾斜现象。
4.此项调整与其他调整无关系。

注意：梯形失真：最大1.5%

9.同步校正(I²C总线控制)

1.接收“棋盘格测试图案”信号。
2.在保养调整状态下呼出“S-COR”项目。
3.用音量增加/减少键钮来增加或减少“S-COR”数据，以获得最佳线性度。
4.通过S-COR的调整进行所有垂直线性度的调整。
5.重调“V-AMP”数据，使过扫描达至8.5%。重调“V-SIFT”数据，使荧屏中心与CRT的几何中心对齐。

注意：垂直线性度：最大 ± 5%

■ PAL CHROMA ADJUSTMENT

1. SUB COLOUR ADJ. (I²C BUS CONTROL)

1. Receive the "PAL Color Bar" signal.
2. Using remote controller, call NORMAL mode.
3. Using remote controller, call NORMAL mode.
   Range : 20 V/Div (Using 10:1 Probe)
   Sweep : 20 μ sec/Div
4. Using the R/C call "SUB COL" adjustment mode. Adj SUB-COL bus data, so that the 75% White & Red portions of PAL Color Bar be at the same level.
5. Clear the adjustment mode.

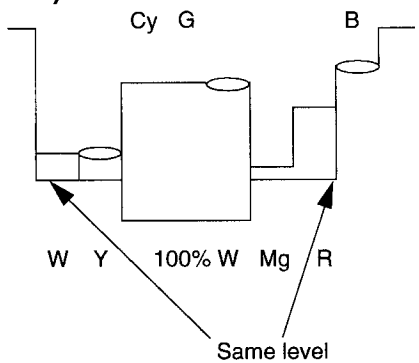


Figure 9

■ PAL制式色度信号电路的调整

1.副彩色的调整(I²C总线控制)
1.接收“PAL制式彩条”信号。
2.通过遥控器呼出标准图像状态。
3.通过遥控器呼出标准图像状态。
测试范围：20V/段 (使用10：1的探针)
扫频时间：20微秒/段
4.通过遥控器呼出“SUB COL"调整项目，然后，调节“SUB COL”总线数据，使PAL制式彩条信号中的75%白色部分的信号电平与红色部分的信号电平一致。
5.取消此项调整状态的设定。

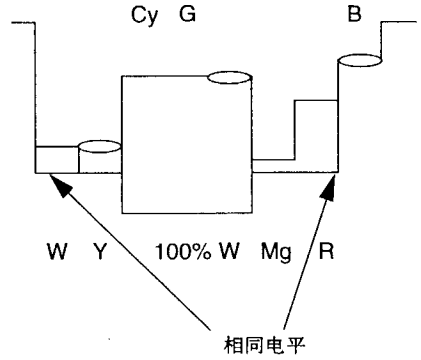


图9

■ NTSC CHROMA ADJUSTMENT

1. SUB-TINT (I²C BUS CONTROL)

1. Receive the NTSC 3.58 Colour Bar signal.
2. Connect the oscilloscope to TP853.
   Range : 500mV/Div
   Sweep time : 20 μ sec/Div
3. Set the "SUB-TIN" mode at service mode. Adjust the "SUB TIN" bus data so that the SECOND AND THIRD portions of the colour Bar are SAME level shown in ***Figure 10***.

Note: Be sure that AV TINT set to 00 at SRVICE mode.

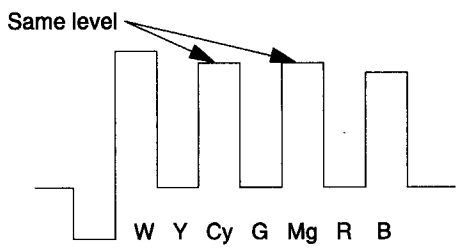


Figure 10

■ NTSC制式色度信号电路的调整

1.副色调的调整(I²C总线控制)
1.接收NTSC3.58制式彩条信号。
2.接示波器于TP853。
测试范围：500mV/段
扫频时间：20微秒/段
3.在保养调整状态下呼出“SUB TIN”项目，然后调节“SUB TIN”总线数据，使彩条信号中的第2与第3部分的电平一致。

注意：在保养调整状态下，
检查AV TIN数据是否设定于00。

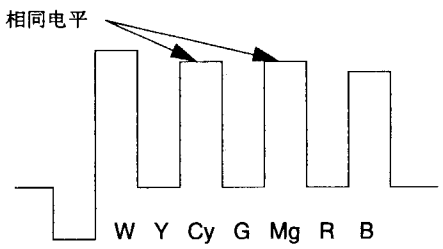


图10

■ SIF (NICAM & IGR) ADJUSTMENT (For 29RN5 AND 29RN8 ONLY) ***DONE BY ABB, NOT NEED TO ADJUST

1. CARRIER DETECTION COIL :T2301

1. Set the MPX SOUND TV Pattern Generator as follows.
   System: PAL B/G for RUNTK0008PEZZ (SINGAPORE)
   I for RUNTK0009PEZZ (HONG KONG)
2. Receive the PAL COLOUR BAR signal for TV receiver. Receiving CH must be adjusted correctly to get correct IF frequency (38.9MHz).
3. Connect pin 20 of IC2301 (TP2301) to the 22k ohm voltage divider and input a 5V ± 0.1V DC power supply as shown in the right.
4. Connect Digitalmeter to TP2301.
5. Adjust coil T2301 so that measure 2.5V ± 0.1V DC at pin 20 of IC2301 (TP2301).
6. Disconnect the voltage divider from the board and the T2301 coil adjustment is done.

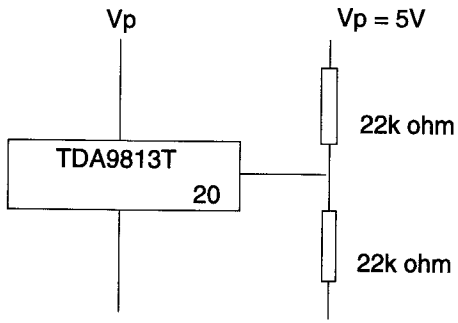


Figure 11

2. PILOT FILTER ADJUSTMENT(T2302)

1. Set the generator as previous one, unless sound mode.
Note : Use 10:1 probe.
2. Change the Sound Mode of the TV Pattern Generator to IGR STEREO.
3. Receive the IGR STEREO for TV set.
4. With an oscilloscope, measure the pilot signal at pin 5 of IC2302.
5. Adjust coil T2302 so that to get a maximum pilot amplitude.

3. AUDIO LEVEL ADJUSTMENT (I²C BUS CONTROL)

1. Set the generator as previous one, unless sound mode.
2. Set the TV pattern generator and the program to DUAL SOUND mode.Receive sound carrier 100% modulated. (CH 1. & CH 2.)
3. Set the TV set to MAIN + SUB mode for sound system. (OSD displays MAIN + SUB).
4. Connect the oscilloscope to the AUDIO OUT (R) terminal. (Terminate AUDIO OUT (R) a 10k ohm impendence.)
5. Call "IGR LEVEL" in SERVICE mode.
6. Increase or decrease "IGR LEVEL" by using Volume key so that the 1kHz sine wave be of 1.76Vp-p.
   ADJ. error : 1.76Vp-p ± 0.1Vp-p.

Note: If use PHILIPS PM5418 GENERATOR, ADJ. error : 1.06Vp-p ± 0.1Vp-p. (60% modulation)

4. SEPARATION ADJUSTMENT (I²C BUS CONTROL)

1. Change the signal condition in the TV pattern generator as follows.
   < Front Panel >
   Sound Mode : IGR, STEREO
   CH 1. : OFF
2. Set the program and TV receiver to STEREO mode.
3. Connect oscilloscope to AUDIO OUT (L). (Terminate with 10k ohm impendence)
4. Call "IGR STEREO" in SERVICE mode.
5. Increase or decrease "IGR STEREO" by using Volume key so that peak to peak voltage of 1kHz sine wave is MINIMUM.

■ 中音频SIF(NICAM和IGR制式)的调整(仅限信号29RN5和29RN8)'''此项调整由ABB负责，所以不需作此项调整。

1.载波检波线圈：T2301

1.按下列要求进行MPX SOUND TV测试图案发生器的设定。
制式：RUNTK0008PEZZ为PAL B/G制式(新加坡)
RUNTK0009PEZZ为I制式(香港)
2.接收用于电视接收机的PAL制式彩条信号。必须正确地调整接收频道，以接收正确的IF频率(38.9MHz)。
3.接IC2301(TP2301)的引脚20于22kΩ电压驱动器，输入5V ± 0.1V直流电源(见图11)。
4.接数字式安培计于TP2301。
5.调节T2301线圈，使IC2301(TP2301)引脚20处所测的电压值达至2.5V ± 0.1V DC。
6.从电路板上拆下电压驱动器后完成了T2301线圈的调整。

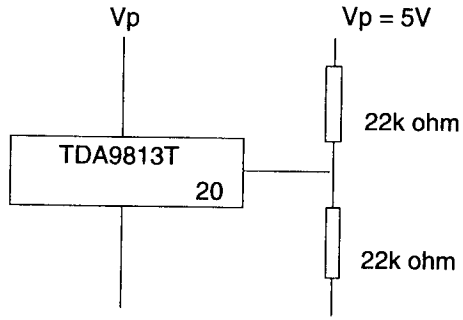


图11

2.导频滤波器的调整(T2302)

1.除声音制式外，按与上项相同要领进行信号发生器的设定。
注意：使用10：1的探针
2.改变TV测试图案信号发生器的声音制式为IGR立体声制式。
3.接收用于电视机的IGR立体声信号。
4.用示波器测量IC2302引脚5处的导频信号电平。
5.调节T2302线圈，以获得最大的导频幅度。

3.音频电平的调整(I²C总线控制)

1.除声音制式外，按与上项相同要领进行信号发生器的设定。
2.设TV测试图案信号发生器和程序于双声音制式。接收100%调制的音频信号载波。(频道1和2)
3.设电视机于声音制式的MAIN+SUB状态。(在荧屏上显示出MAIN+SUB的文字)
4.接示波器于音频输出端(右侧)。(端接10kΩ电阻)
5.在保养调整状态下呼出“IGR LEVEL”项目。
6.用音量增加/减少键钮来增加或减少“IGR LEVEL”数据，使1kHz正弦波幅值达至1.76Vp-p的规定要求。
调整误差：1.76Vp-p ± 0.1Vp-p
注意：如果使用PHILIPS PM5418信号发生器，调整误差为1.06Vp-p ± 0.1Vp-p(60%调制)

4.分离电路的调整(I²C总线控制)

1.按下列要求改变TV测试图案信号发生器的信号条件。
〈前面板〉
声音制式：IGR STEREO(立体声)
频道1：OFF
2.设程序和电视接收机于STEREO状态。
3.接示波器于音频输出端(左侧)。(端接10kΩ电阻)。
4.在保养调整状态下呼出“IGR STEREO”项目。
5.用音量增加/减少键钮来增加或减少“IGR STEREO”数据，使1kHz正弦波幅值达至最小程度。

■ A/V INPUT/OUTPUT CHECKING

1. VIDEO & AUDIO OUTPUT CHECKING

1. Receive the "PAL COLOUR BAR" signal (100% White Color Bar Sound 400 Hz 100% Mod)
2. Terminate the Video output with a 75 ohm impendence. Make sure the output is as specified (1.0 Vp-p ± 3 dB)
3. Terminate the Audio output with a 10 Kohm impendence. Make sure the O/P is as specified (1.76 Vp-p ± 3 dB).

2. VIDEO & AUDIO INPUT CHECKING

1. Using the TV/AV key on the remote controller, make sure that the modes change in order of TV, AV1, AV2 & TV again and that the video & audio output are according to the input terminal for each mode.

3. AUTO SELECT

1. Connect Video signal to FRONT AV (AV2).
2. Make sure Channel switch from other channel to AV2 automatically.

■ PROTECTOR OPERATION CHECKING

1. BEAM PROTECTOR

1. Receive the "MONOSCOPE PATTERN" signal.
2. Set CONTRAST MAX.
3. Set BRIGHT MAX.
4. While the R or B or G Cathode short to ground, make sure the protector ON and switch to standby mode.

2. H, V PROTECTOR

1. Receive the "MONOSCOPE PATTERN" signal.
2. Connect output of Bias Box to D601 cathode (D608).
3. Set voltage of Bias Box to 20V and make sure the protector is work.

3. OTHER PROTECTOR

1. Once finish rectified Electrolytic Capacitor short testing in + B line, check all possible damaged components on +B line.

■ 音频/视频信号输入、输出的检查

1. 音频/视频信号输入、输出的检查
   1. 接收“PAL制式彩条”信号。(100%白色彩条，声音：400Hz、100%调制)。
   2. 检查视频信号输出端的电阻为75Ω时的信号强度是否满足标准值的1.0Vp-p ± 3dB的规定要求。
   3. 检查音频信号输出端的电阻为10kΩ时的信号强度是否满足标准值的1.76Vp-p ± 3dB的规定要求。

2. 视频和音频信号输入的检查
   1. 相继触按遥控器上的电视与录象切换(TV/AV)键，检查电视机信号输入频道是否按电视频道(TV)，录象1频道(AV1)、录象2频道(AV2)以及电视频道(TV)的顺序循环切换。并且，检查每一设定时的视频信号以及音频信号输出是否正常地与设定输入频道对应。

3. 自动选择功能的检查
   1. 向FRONT AV(AV2)插孔输入视频信号。
   2. 检查频道是否由其它频道自动地转换为AV2频道。

■ 保护电路性能的检查

1. 电子束保护电路
   1. 接收“单像管图案”信号。
   2. 设对比度控制于最大。
   3. 设亮度控制于最大。
   4. 在短接R(红色)、B(蓝色)或G(绿色)阴极时，检查电子束保护电路是否被激励动作，电视机是否置于准备状态。

2. 高压保护电路
   1. 接收“单像管图案”信号。
   2. 接偏压器的输出端于D601阴极(D608)。
   3. 调偏压器电压为20V，检查这时的高压保护电路是否被激励动作。

3. 其它保护电路
   1. 在＋B线路上进行电解电容器的短接试验后，检查有可能受损伤或损坏的＋B线路上的所有电路元件。

CHECKING OPERATION (VIDEO & AUDIO)

NO	CHECKING POINT	SETTING / CONDITION	WAVEFORM OR OTHERS
1	CONTRAST	① Receive the "MONOSCOPE PATTERN" signal. ② Press the CH UP/DOWN key for PICTURE control setting with R/C, select the CONTRAST. ③ Increase or decrease the CONTRAST by using the VOLUME UP / DOWN key. ④ Check whether the CONTRAST is OK or not.	
2	COLOUR	① Receive the "COLOUR BAR PATTERN" signal. ② Press the CH UP / DOWN key for PICTURE control setting with the R/C, select the COLOUR. ③ Increase or decrease the COLOUR by using the VOLUME UP / DOWN key. ④ Check whether the COLOUR is OK or not.	
3	BRIGHTNESS	① Receive the "MONOSCOPE PATTERN" signal. ② Press the CH UP / DOWN key for PICTURE control setting with the R/C, select the BRIGHTNESS . ③ Increase or decrease the BRIGHTNESS by using the VOLUME UP / DOWN key. ④ Check whether the BRIGHTNESS is OK or not.	
4	TINT	① Receive the "NTSC COLOUR BAR PATTERN" signal. ② Press the CH UP / DOWN key for PICTURE control setting with the R/C, select the TINT. ③ Increase or decrease the TINT by using the VOLUME UP / DOWN key. ④ Check whether the TINT is OK or not.	
5	SHARPNESS	① Receive the "MONOSCOPE PATTERN" signal. ② Press the CH UP / DOWN key for PICTURE control setting with the R/C, select the SHARPNESS. ③ Increase or decrease the SHARPNESS by using the VOLUME UP / DOWN key. ④ Check whether the SHARPNESS is OK or not.	
6	WHITE TEMP	① Receive the "MONOSCOPE PATTERN" signal. ② Press the CH UP / DOWN key for PICTURE control setting with the R/C, select WHITE TEMP. ③ Increase or decrease the WHITE TEMP by using the VOLUME UP / DOWN key. ④ Check whether the WHITE TEMP is OK or not.	
7	NORMAL	① Receive the "COLOUR BAR PATTERN" signal. ② Press NORMAL key to set the picture condition to normal . When the NORMAL key is pressed, all the initial picture control settings will be preset to normal setting as listed below: Contrast :MAX. Colour :CENTER Brightness :CENTER Tint :CENTER Sharpness :CENTER	If nothing is display mean contrast, colour, bright, tint, sharpness are all in normal setting.

电路性能的检查（图象和声音）

编号	调整点	设定位置及其条件	波形及其他
1	对比度	① 接收“单像管图案”信号。 ② 触按遥控器上的频道上移/下移键钮（该键钮具有图像调节功能），以选择对比度调整状态。 ③ 触按音量增加/减少键钮来增加或减少对比度数据。 ④ 检查对比度是否符合规定要求。	
2	彩色	① 接收“彩条图案”信号。 ② 触按遥控器上的频道上移/下移键钮（该键钮具有图像调节功能），以选择彩色调整状态。 ③ 触按音量增加/减少键钮来增加或减少彩色数据。 ④ 检查彩色是否符合规定要求。	
3	亮度	① 接收“单像管图案”信号。 ② 触按遥控器上的频道上移/下移键钮（该键钮具有图像调节功能），以选择亮度调整状态。 ③ 触按音量增加/减少键钮来增加或减少亮度数据。 ④ 检查亮度是否符合规定要求。	
4	色调	① 接收“NTSC制式彩条图案”信号。 ② 触按遥控器上的频道上移/下移键钮（该键钮具有图像调节功能），以选择色彩调整状态。 ③ 触按音量增加/减少键钮来增加或减少色彩数据。 ④ 检查色彩是否符合规定要求。	
5	鲜明度	① 接收“单像管图案”信号。 ② 触按遥控器上的频道上移/下移键钮（该键钮具有图像调节功能），以选择鲜明度调整状态。 ③ 触按音量增加/减少键钮来增加或减少鲜明度数据。 ④ 检查鲜明度是否符合规定要求。	
6	白色温度	① 接收“单像管图案”信号。 ② 触按遥控器上的频道上移/下移键钮（该键钮具有图像调节功能），以选择白色温度调整状态。 ③ 触按音量增加/减少键钮来增加或减少白色温度数据。 ④ 检查白色温度是否符合规定要求。	

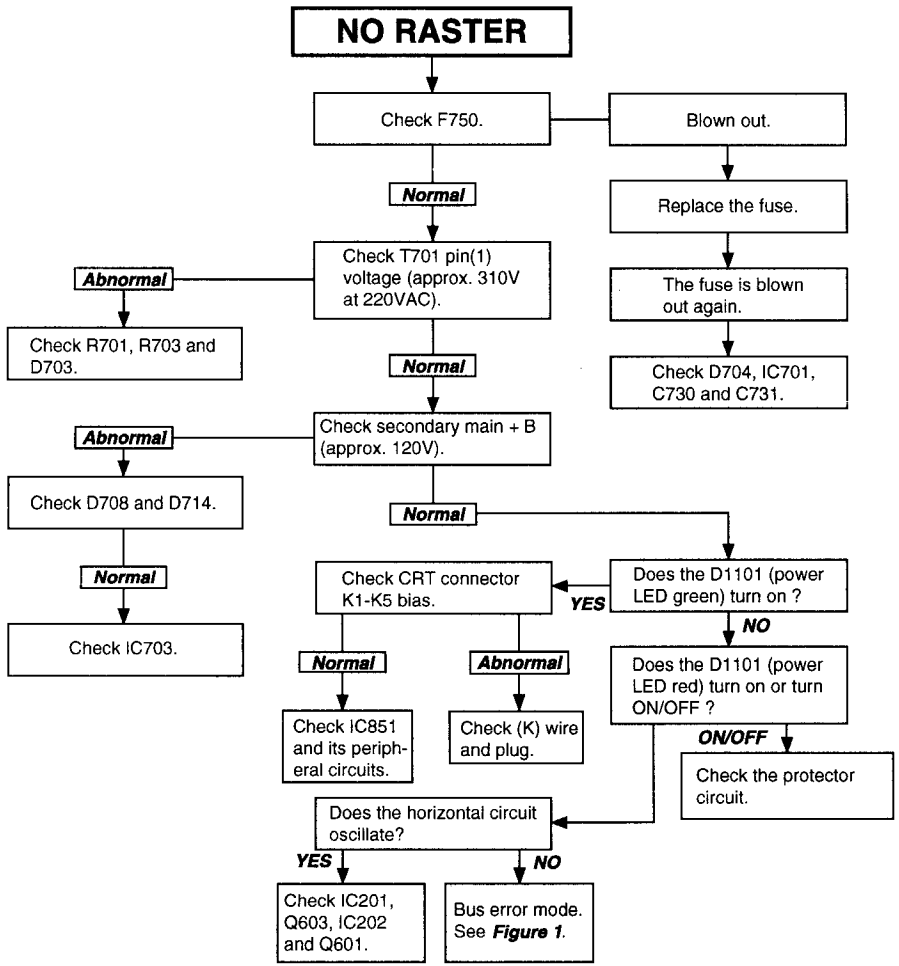
NO	CHECKING POINT	SETTING / CONDITION	WAVEFORM OR OTHERS
8	CH COLOUR DISPLAY	All Ch (1~99) will have an OSD display of the channel number in green colour under AFT ON condition.	
9	BASS	① Receive the MUSIC SOUND SIGNAL. ② Press the CH UP / DOWN key for SOUND control setting with the R/C, select the BASS. ③ Increase or decrease the BASS by using the VOLUME UP / DOWN key. ④ Check whether the BASS (low frequency) is OK or not.	
10	MIDDLE	① Receive the MUSIC SOUND SIGNAL. ② Press the CH UP / DOWN key for SOUND control setting with the R/C, select the MIDDLE. ③ Increase or decrease the MIDDLE by using the VOLUME UP / DOWN key. ④ Check whether the MIDDLE (MIDDLE frequency) is OK or not.	
11	TREBLE	① Receive the MUSIC SOUND SIGNAL. ② Press the CH UP / DOWN key for SOUND control setting with the R/C, select the TREBLE. ③ Increase or decrease the TREBLE by using the VOLUME UP / DOWN key. ④ Check whether the TREBLE (HIGH frequency) is OK or not.	
12	BALANCE	① Receive the MUSIC SOUND SIGNAL. ② Press the CH UP / DOWN key for SOUND control setting with the R/C, select the BALANCE. ③ Increase or decrease the left or right speaker BALANCE by using the VOLUME UP / DOWN key. ④ Check whether the BALANCE of left and right speakers is OK or not.	
13	NORMAL	① Receive the MUSIC SOUND SIGNAL. ② Press NORMAL key to set the sound condition to normal . When the NORMAL key is pressed, all the initial sound control settings will be preset to normal setting as listed below: BASS :CENTER MIDDLE :CENTER TREBLE :CENTER BALANCE :CENTER	
14	SURROUND	① Receive the MUSIC SOUND SIGNAL. ② Press the CH UP / DOWN key for SURROUND control setting with the R/C. ③ Press Volume Up to switch Surround Mode as follows, MOVIE/DISCO/POP/ROCK/CLASSIC/ SPORTS/SIMULATED/OFF. ④ Make sure each mode is working properly.	

编号	调整点	设定位置及其条件	波形及其他
7	标准图象	① 接收“彩条图案”信号。 ② 触按标准键钮，以选择图像标准状态。触按标准键钮时，出厂时设定的所有图像调节项目被预设而返回至标准设定状态。 对比度 ：最大 色调 ：中心 彩色 ：中心 鲜明度 ：中心 亮度 ：中心	在荧屏上无显示内容时，对比度、彩色、亮度、色彩以及鲜明度均处于标准设定状态。
8	频道代号表示色	在AFT ON状态下，所有(1～99)频道代号的表示色均呈现绿色。	
9	低音	① 接收音乐信号。 ② 触按遥控器上的频道上移/下移键钮、(该键钮具有声音调节功能)，以选择低音调整状态。 ③ 触按音量增加/减少键钮来增加或减少低音数据。 ④ 检查低音(低域频道)是否符合规定要求。	
10	中音	① 接收音乐信号。 ② 触按遥控器上的频道上移/下移键钮、(该键钮具有声音调节功能)，以选择中音调整状态。 ③ 触按音量增加/减少键钮来增加或减少中音数据。 ④ 检查中音(中域频率)是否符合规定要求。	
11	高音	① 接收音乐信号。 ② 触按遥控器上的频道上移/下移键钮(该键钮具有声音调节功能)，以选择高音调整状态。 ③ 触按音量增加/减少键钮来增加或减少高音数据。 ④ 检查高音(高域频率)是否符合规定要求。	
12	平衡	① 接收音乐信号。 ② 触按遥控器上的频道上移/下移键钮(该键钮具有声音调节功能)，以选择平衡调整状态。 ③ 触按音量增加/减少键钮来增加或减少左右侧扬声器的平衡数据。 ④ 检查左右侧扬声器的平衡是否符合规定要求。	

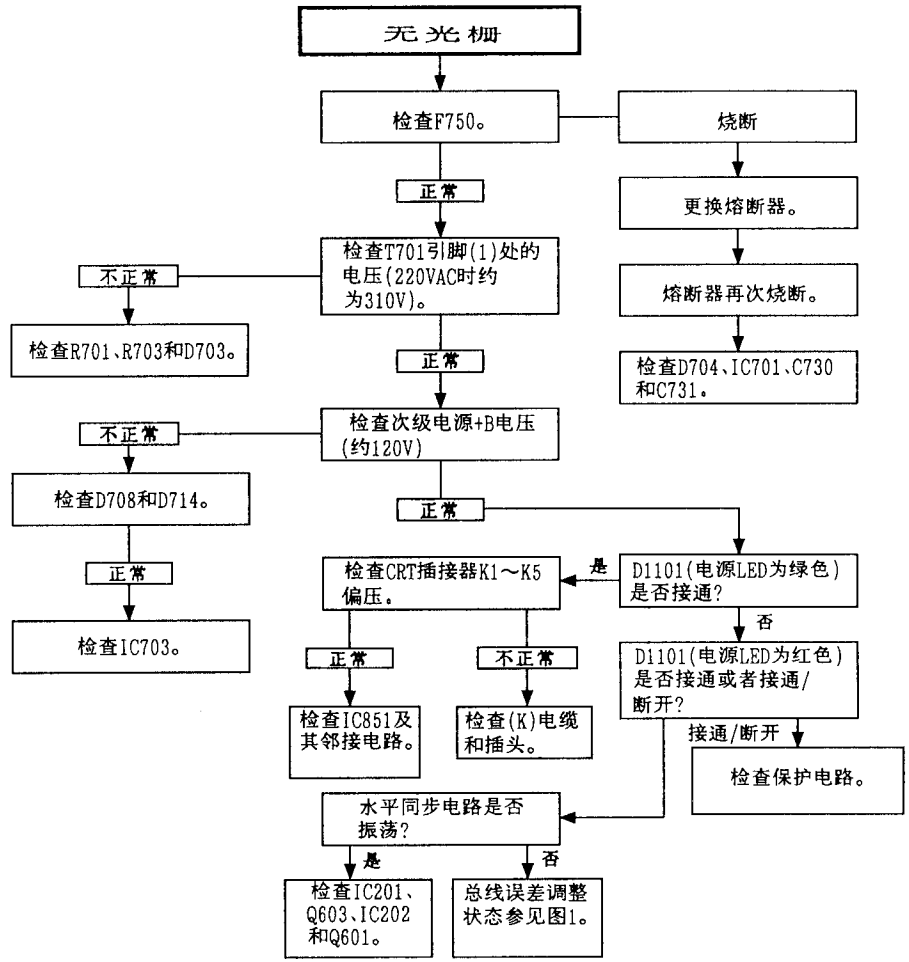
NO.	CHECKING POINT	SETTING / CONDITION	WAVEFORM OR OTHERS
15	COLOUR SYSTEM	① Receive the "PAL COLOUR BAR PATTERN" signal. Press the SYSTEM key to set the COLOUR SYSTEM MODE to AUTO mode. Check whether the colour of the PAL Colour Bar signal is OK or not. ② Receive the "NTSC 4.43 COLOUR BAR" signal. Press the SYSTEM key to set the COLOUR SYSTEM mode to AUTO mode. Check whether the colour of the N4.43 Colour Bar signal is OK or not. ③ Receive the "NTSC 3.58 COLOUR BAR" signal. Press the SYSTEM key to set the COLOUR SYSTEM mode to AUTO mode. Check whether the colour of the N3.58 Colour Bar signal is OK or not.	
16	FUNCTION	① Press FUNCTION key to select each mode as follows, SAVE/ AV SELECT/ NR/ BLUE BACK/ OSD. ② Press Volume Up to switch each mode, make sure each mode is working properly.	
17	NOISE MUTE CHECKING	① Receive "PAL COLOUR BAR" signal. ② Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state. ③ Be sure that the sound mute is effective. ④ Finally turn down the volume of CTV to minimum.	

编号	调整点	设定位置及其条件	波形及其他
13	标准	① 接收音乐信号。 ② 触按标准键钮，以选择声音标准状态。触按标准键钮时，出厂时设定的所有声音调节项目被预设而返回至标准设定状态。 低音 ：中心 中音 ：中心 高音 ：中心 平衡 ：中心	
14	环绕立体声	① 接收音乐信号。 ② 触按遥控器上的频道上移/下移键钮(该键钮具有环绕立体声调节功能)。 ③ 持续触按音量增加键钮，环绕立体声设定状态就按MOVIE/DISCO/POP/ROCK/CLASSIC/SPORTS/SIMULATED/OFF之顺序变化。 ④ 检查各种设定状态是否正确地进行动作。	
15	彩色制式	① 接收“PAL制式彩条图案”信号，触按彩色制式选择键钮，以选择自动调整状态，检查这时的PAL制式彩条信号是否正常。 ② 接收“NTSC4.43制式彩条图案”信号。触按彩色制式选择键钮，以选择自动调整状态，检查这时的NTSC4.43制式彩条信号是否正常。 ③ 接收“NTSC3.58制式彩条图案”信号。触按彩色制式选择键钮，以选择自动调整状态，检查这时的NTSC3.58制式彩条信号是否正常。	
16	功能	① 触按功能键钮，并按SAVE/AV SELECT/NR/BLUE BACK/OSD之顺序选择各个设定状态。 ② 触按音量增加键钮，并按上列顺序改变各个设定状态。检查这时的各个设定状态是否正常地进行工作。	
17	噪声抑制功能的检查	① 接收“PAL制式彩条”信号。 ② 设音量旋钮于最大位置以检查扬声器是否发出声音，然后设定于无信号接收状态。 ③ 这时，确认噪声抑制功能应动作。 ④ 最后，设CTV的音量旋钮于最小程度。	

TROUBLESHOOTING TABLE



故障检修流程图



TROUBLESHOOTING TABLE (Continued)

If bus error happen, the LED RED (pin (30) of IC1001 low) indicator starts flashing and the power is turned off. The power key is still effective.

E²PROM (S24C04A)
IC1002

1 chip IC (TDA8375)
IC201

Sound processor IC (TDA7429S)
IC302

NICAM IC (SAA7283)
IC2302

IGR IC (TDA9840)
IC2302 (29RN5 only)

TEXT IC (SAA5249)
IC1802 (29RN5 only)

PSI IC (TDA4671)
IC401

PLL (ST6HD64)
TU201

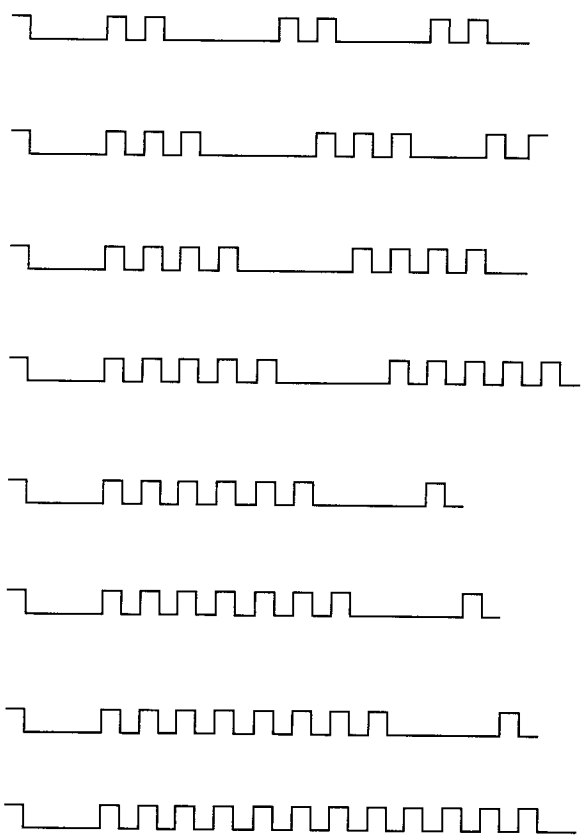


Figure 1

故障检修流程图 （接上页）

发生总线误差时，LED红色(IC1001(低电平)的引脚(30))指示灯开始闪动，与其同时，关闭电源开关。此时，电源键钮应为有效。

E²PROM (S24C04A)
IC1002

1 chip IC (TDA8375)
IC201

Sound processor IC (TDA7429S)
IC302

NICAM IC (SAA7283)
IC2302

IGR IC (TDA9840)
IC2302 (仅限型号29RN5)

TEXT IC (SAA5249)
IC1802 (29RN5 only)

PSI IC (TDA4671)
IC401

PLL (ST6HD64)
TU201

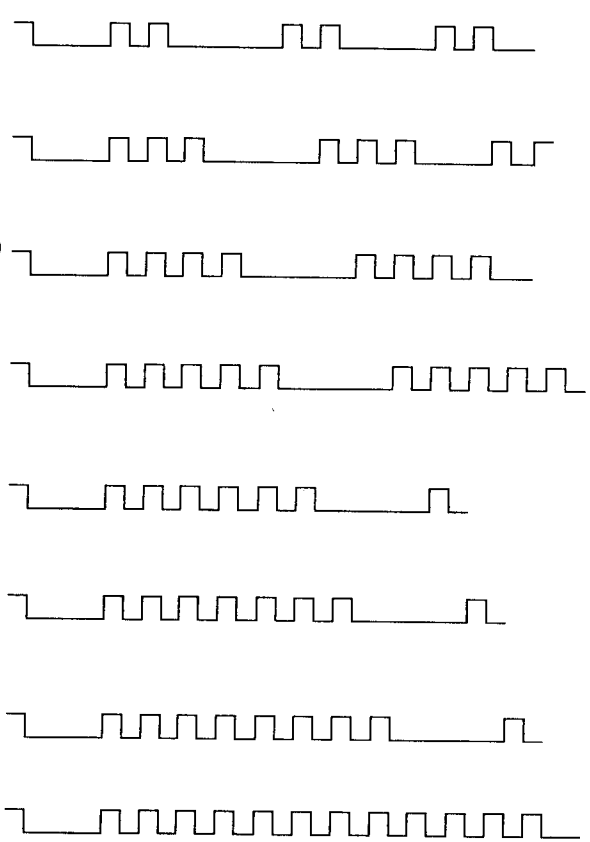
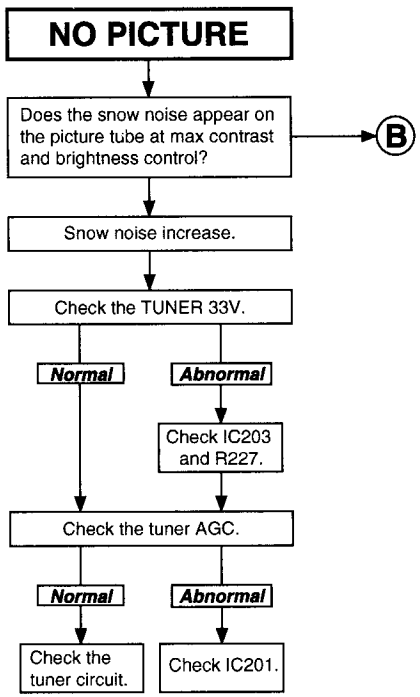
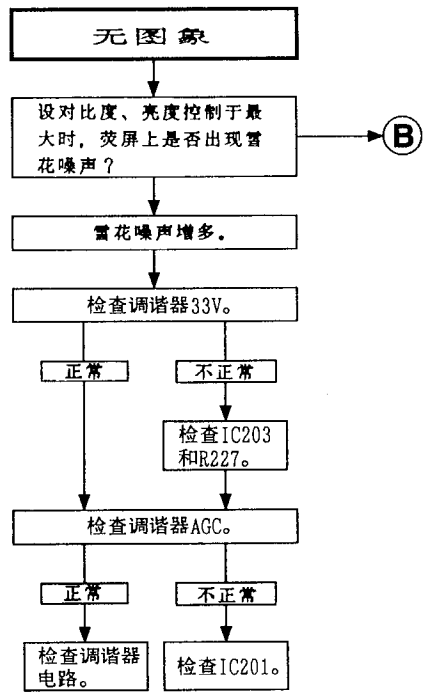


图1

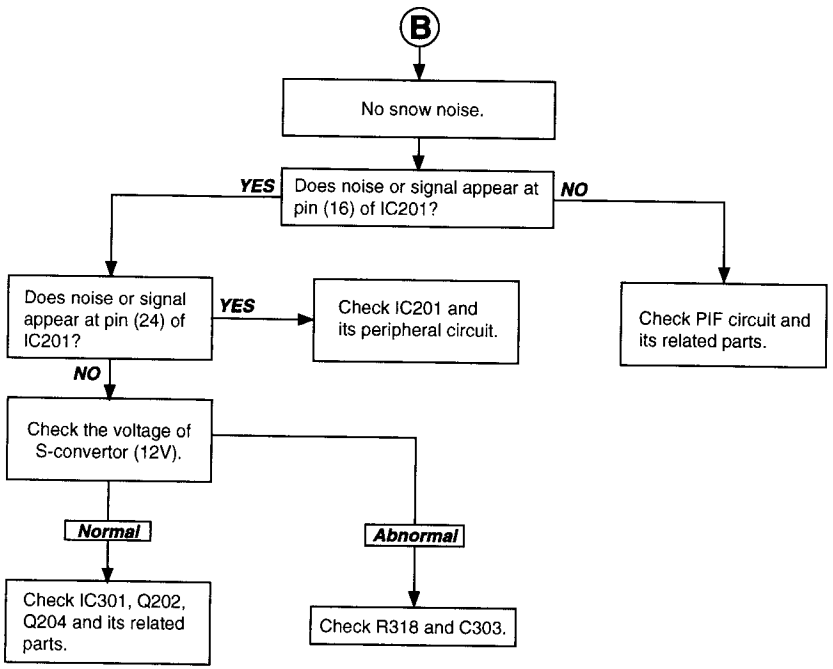
TROUBLESHOOTING TABLE (Continued)

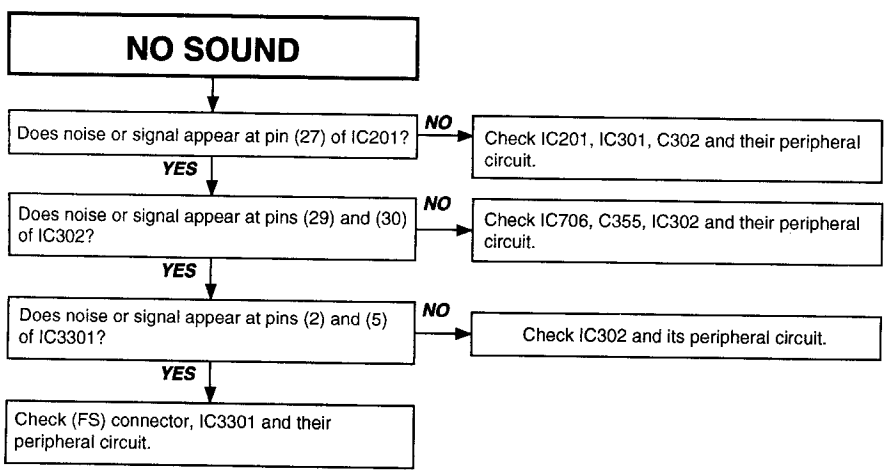


故障检修流程图 （接上页）

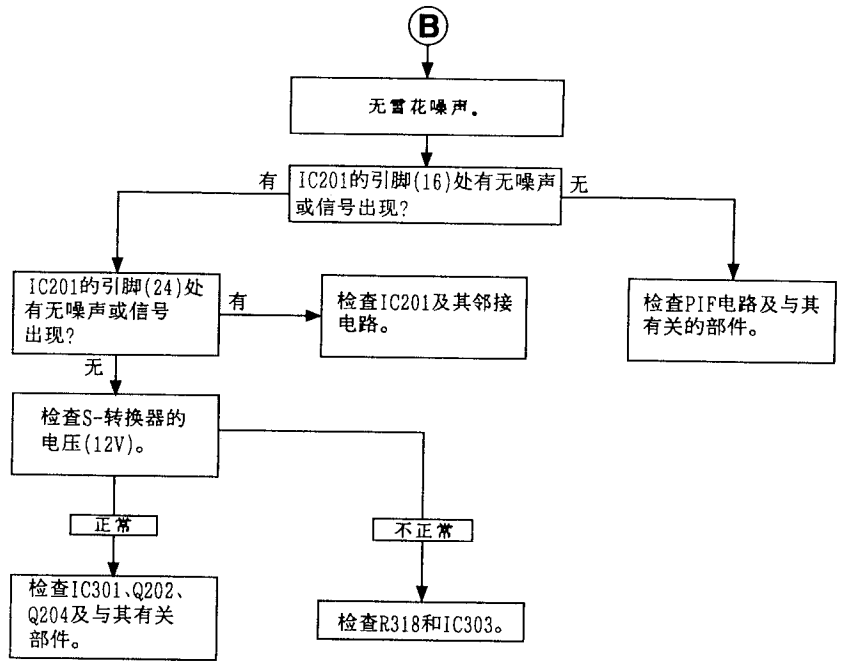


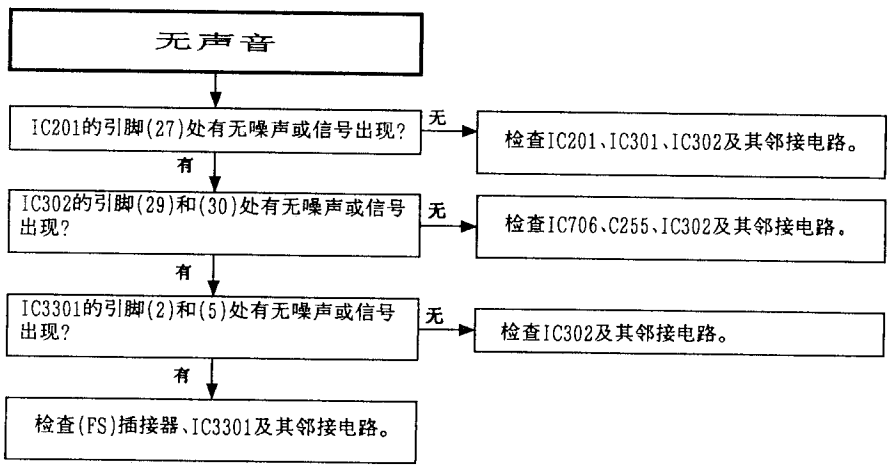
TROUBLESHOOTING TABLE (Continued)


B
No snow noise.
YES
Does noise or signal appear at pin (16) of IC201?
NO
Does noise or signal appear at pin (24) of IC201?
YES
Check IC201 and its peripheral circuit.
Check PIF circuit and its related parts.
NO
Check the voltage of S-convertor (12V).
Normal
Abnormal
Check IC301, Q202, Q204 and its related parts.
Check R318 and C303.


NO SOUND
Does noise or signal appear at pin (27) of IC201?
NO
Check IC201, IC301, C302 and their peripheral circuit.
YES
Does noise or signal appear at pins (29) and (30) of IC302?
NO
Check IC706, C355, IC302 and their peripheral circuit.
YES
Does noise or signal appear at pins (2) and (5) of IC3301?
NO
Check IC302 and its peripheral circuit.
YES
Check (FS) connector, IC3301 and their peripheral circuit.

故障检修流程图 （接上页）





TROUBLESHOOTING TABLE (Continued)

NEITHER VERTICAL NOR HORIZONTAL SYNCHRONIZATION

Check IC201, C603, C604, C609 and R605.

DEFECTIVE VERTICAL AMP. AND VERTICAL LINEARITY

Readjust vertical size.

Vertical size is abnormal/non linearity.

Check R503, R504 and R505.

NO VERTICAL SCAN

Check IC501 bias.

Normal

Check R503, C502, R501, C503 and C501.

Abnormal

Check R638,R620 and R512.

故障检修流程图 （接上页）

无垂直同步信号和水平同步信号

检查IC201、C603、C604、C609和R605。

垂直幅值和垂直线性度异常

重调垂直尺寸。

垂直尺寸和垂直线性度均不符规定要求。

检查R503、R504和R505。

无垂直扫描

检查IC501偏压。

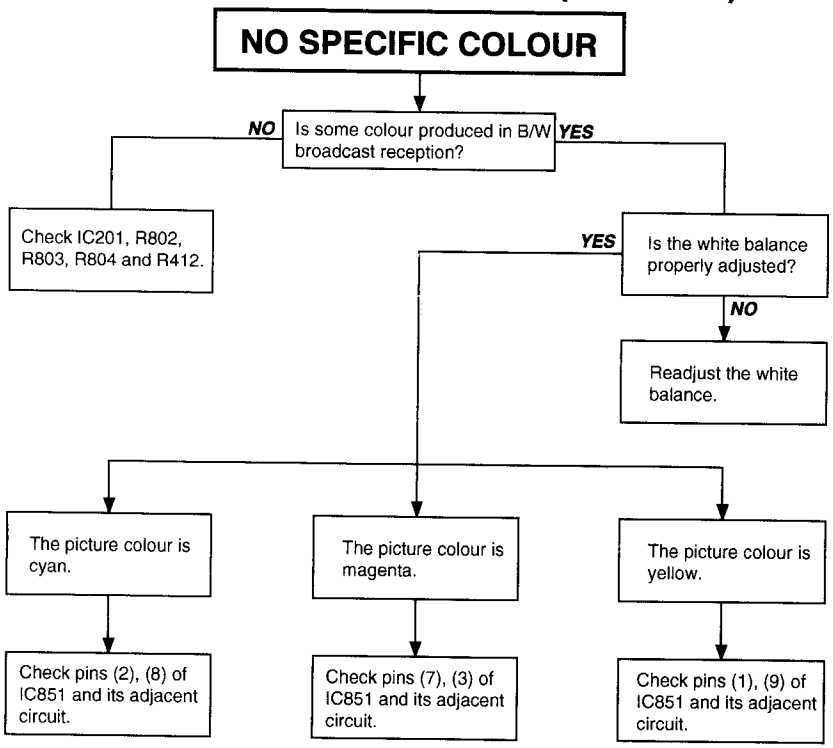
正常

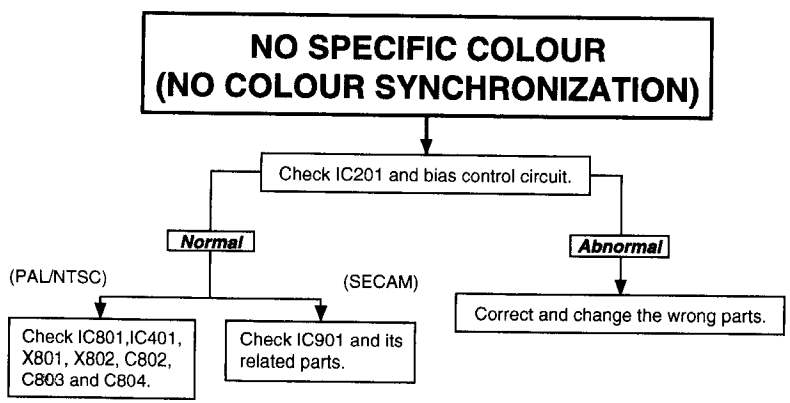
检查R503、C502、R501、C503和C501。

不正常

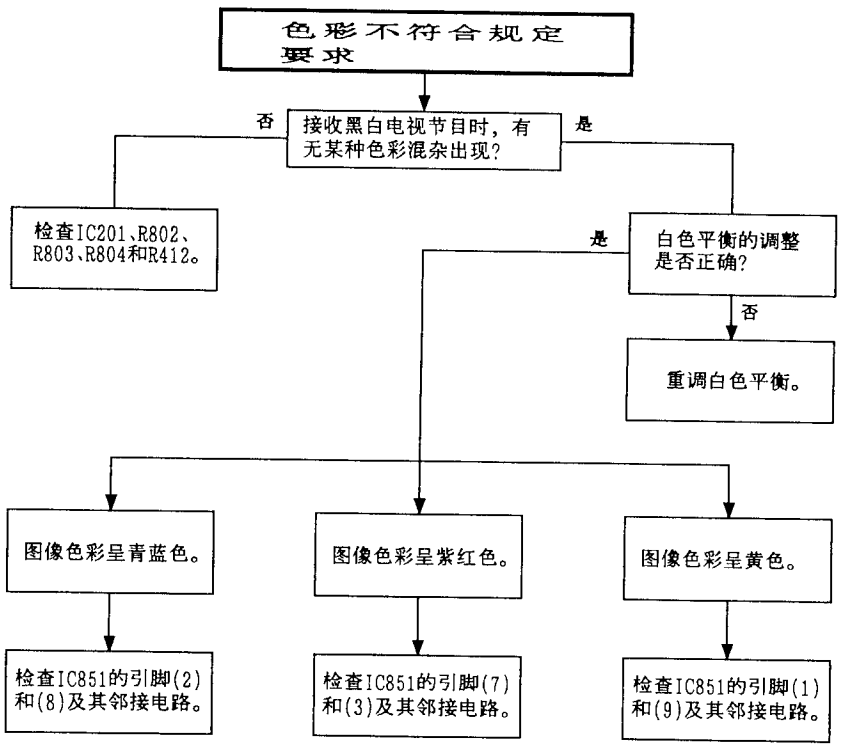
检查R638、R620和R512。

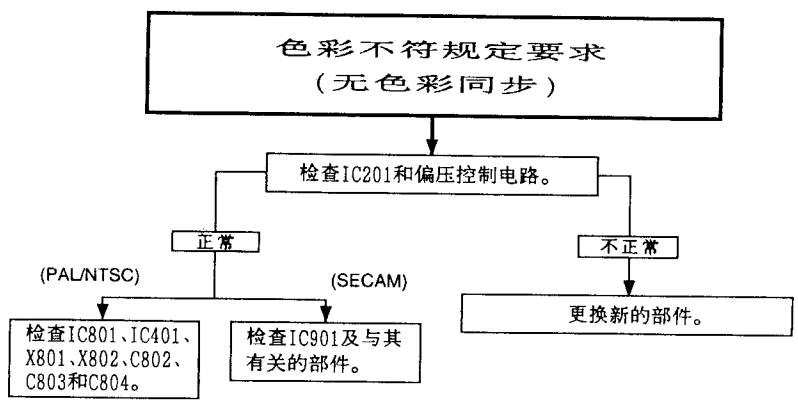
TROUBLESHOOTING TABLE (Continued)


NO SPECIFIC COLOUR
NO
Is some colour produced in B/W broadcast reception?
YES
Check IC201, R802, R803, R804 and R412.
YES
Is the white balance properly adjusted?
NO
Readjust the white balance.
The picture colour is cyan.
The picture colour is magenta.
The picture colour is yellow.
Check pins (2), (8) of IC851 and its adjacent circuit.
Check pins (7), (3) of IC851 and its adjacent circuit.
Check pins (1), (9) of IC851 and its adjacent circuit.



故障检修流程图 （接上页）



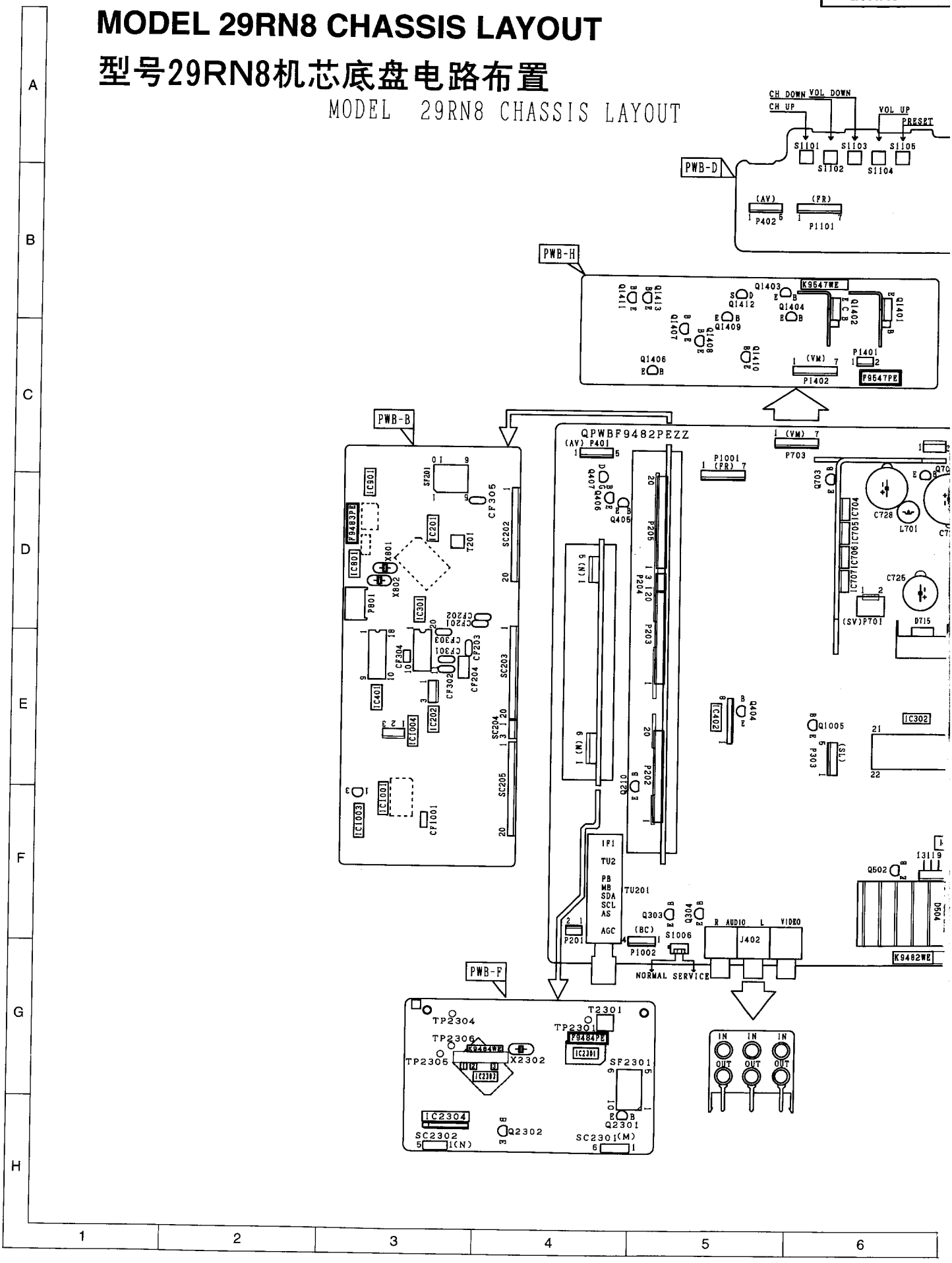


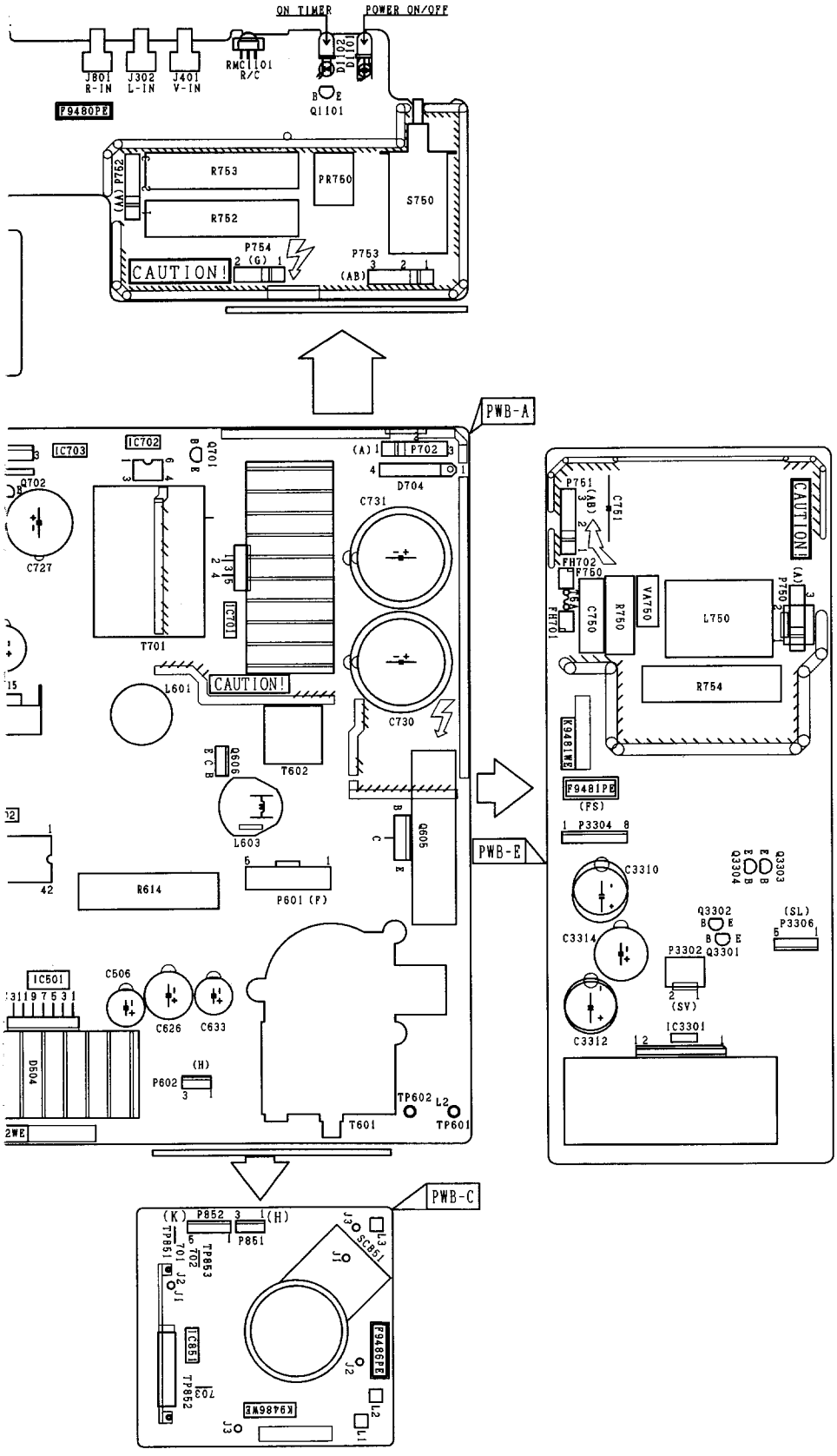
MEMO

MODEL 29RN8 CHASSIS LAYOUT

型号29RN8机芯底盘电路布置

MODEL 29RN8 CHASSIS LAYOUT



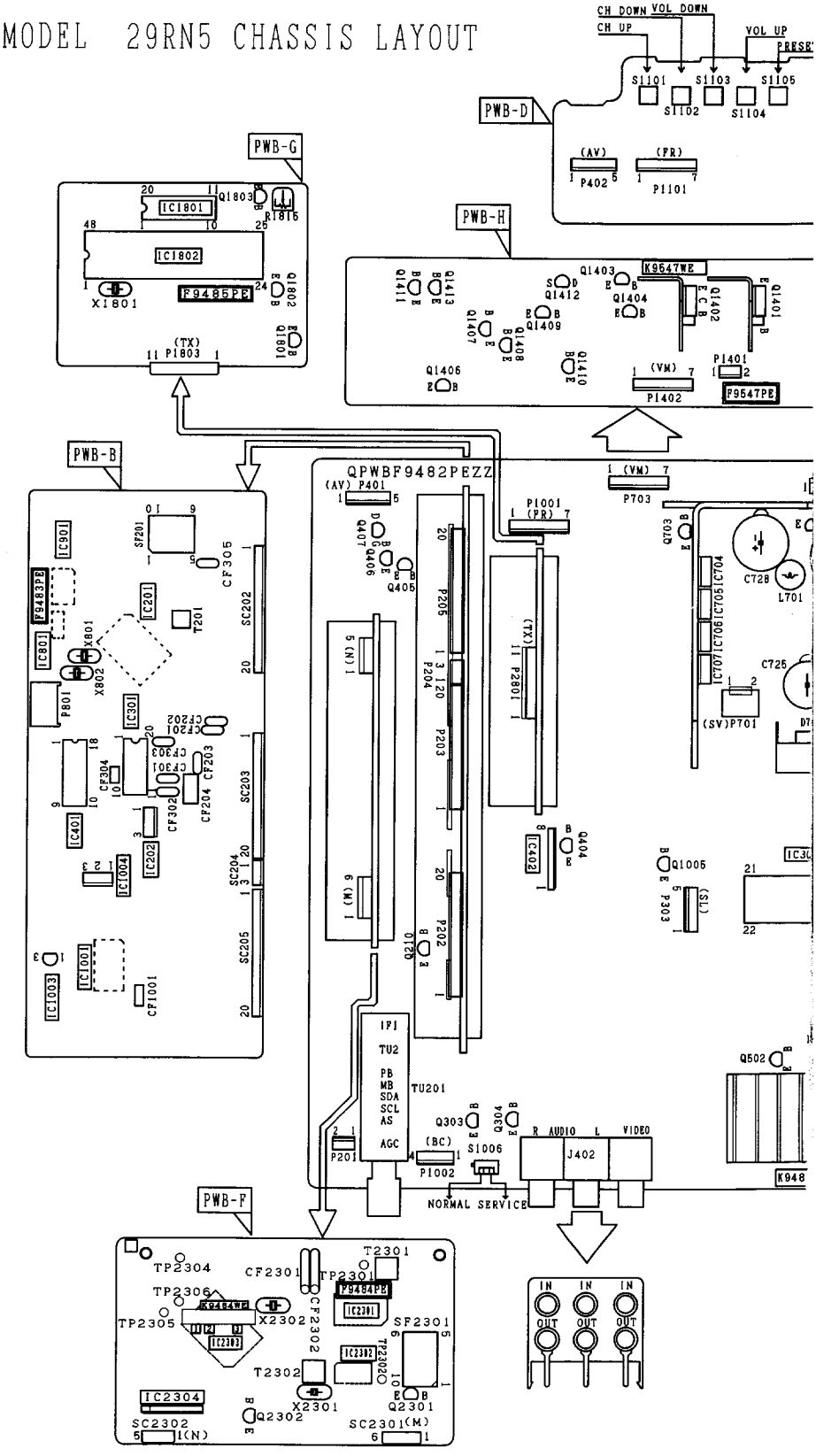

ON TIMER
POWER ON/OFF
J801 R-IN
J302 L-IN
J401 V-IN
RMC1101 R/C
Q1101
F9480PE
R753
R752
PR750
S750
P754
P753
CAUTION!
PWB-A
PWB-E
PWB-C
IC703
IC702
Q701
Q702
C727
T701
C731
C730
D704
L601
L603
T602
R614
P601 (F)
IC501
C506
C626
C633
D504
P602
T601
TP602
TP601
P751
C751
FH702
F760
C750
R750
VA750
L750
R754
F9481PE
(FS)
P3304
C3310
C3314
C3312
Q3302
Q3301
P3302
(SV)
(SL)
P3306
IC3301
P852
P851
TP851
TP852
TP853
SC851
F9488PE
K9486WE
K9481WE

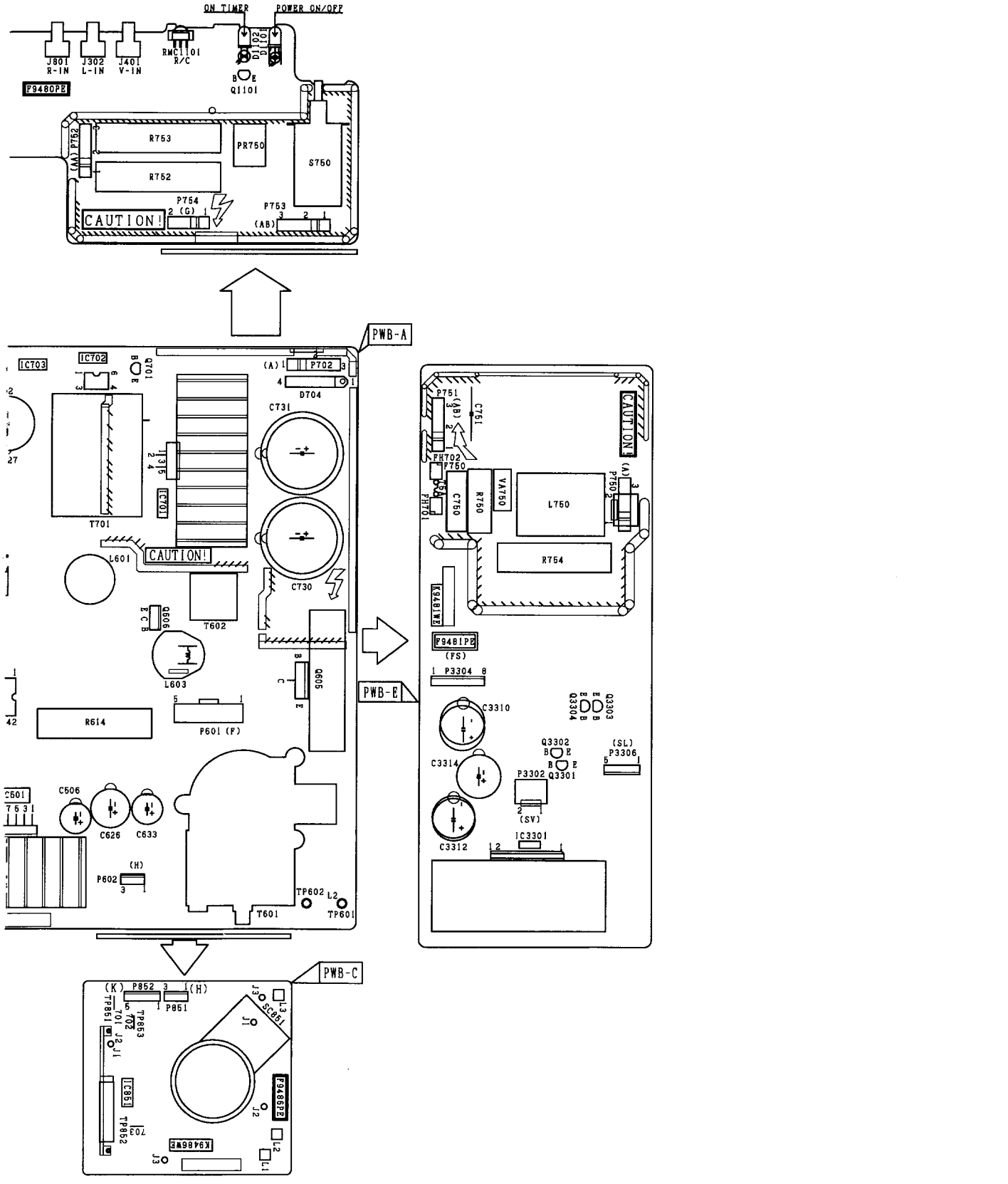
7	8	9	10	11	12

MODEL 29RN5/29RN5RU CHASSIS LAYOUT

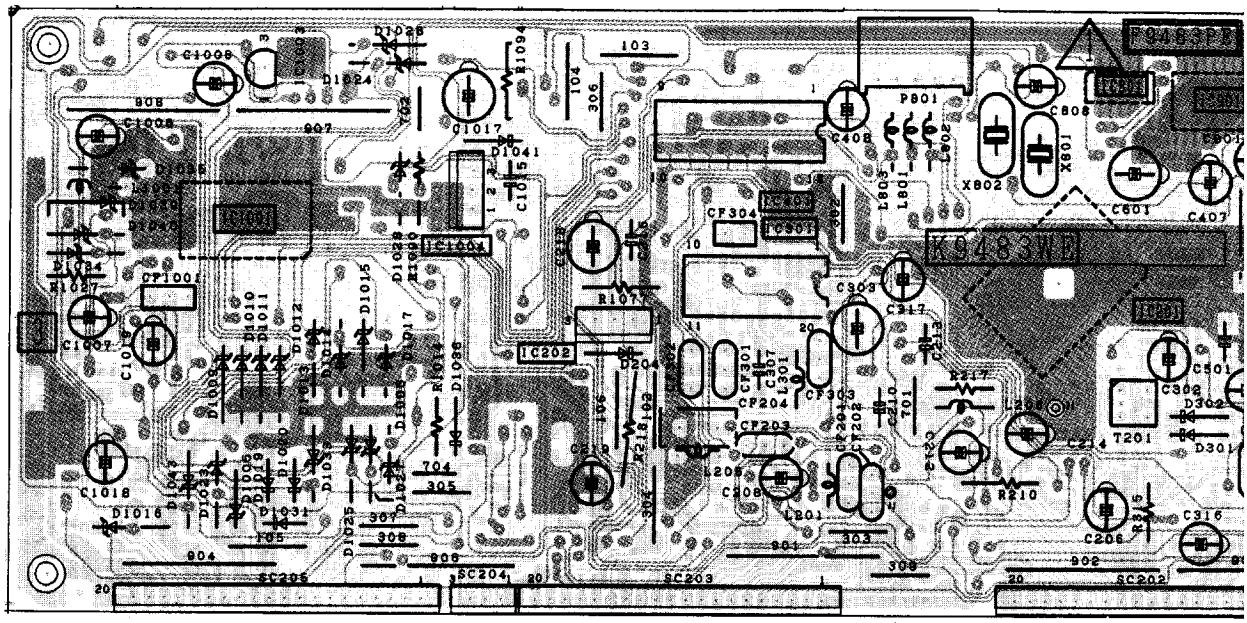
型号29RN5/29RN5RU机芯底盘电路布置

MODEL 29RN5 CHASSIS LAYOUT



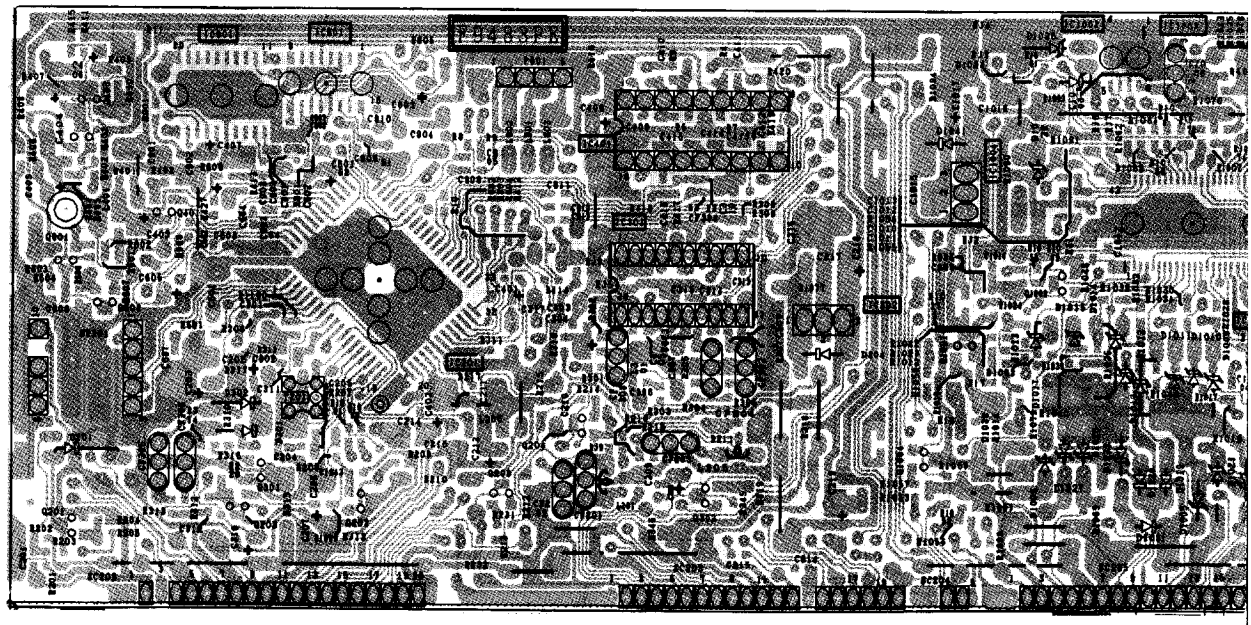

ON TIMER
POWER ON/OFF
J801 R-IN
J302 L-IN
J401 V-IN
RMC1101 R/C
Q1101
F9480PE
R753
R752
PR750
S750
P754
P753
CAUTION!
PWB-A
PWB-E
PWB-C
IC703
IC702
Q701
P702
D704
C731
C730
T701
T602
L601
L603
Q606
Q605
R614
P601 (F)
C606
C626
C633
P602 (H)
T601
TP602
TP601
L2
P751
C751
PH702
F750
C750
R750
VA750
L750
P752
PH701
R754
F9481PE
(FS)
P3304
C3310
Q3303
Q3304
Q3302
Q3301
C3314
P3302
(SV)
(SL)
P3306
C3312
IC3301
(K)
P852
P851
(H)
TP851
TP853
TP852
SC951
J1
J2
J3
IC851
F9486PE
K9486WE
L3
L1

7	8	9	10	11	12



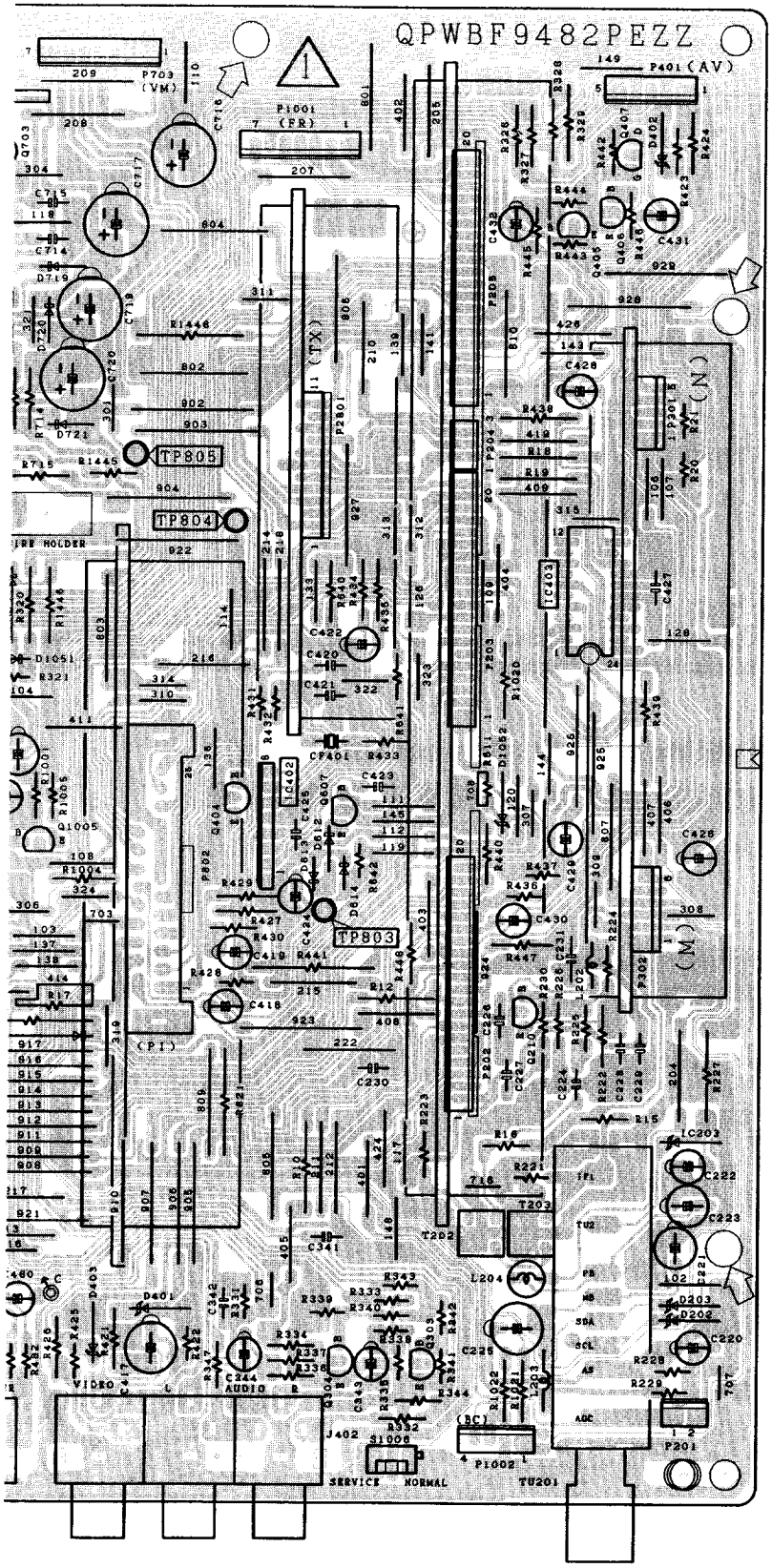
PWB-B:Main 2 Unit (Components Layer)

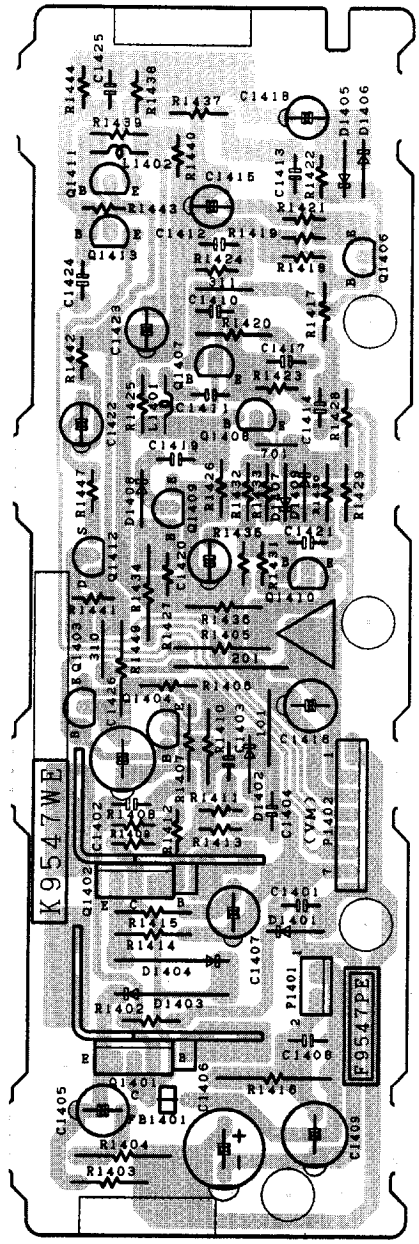
印刷电路板－B：主电路装置 2（部件装备侧）



PWB-B:Main 2 Unit (Chip Parts Layer)

印刷电路板－B：主电路装置 2（箔片贴置侧）





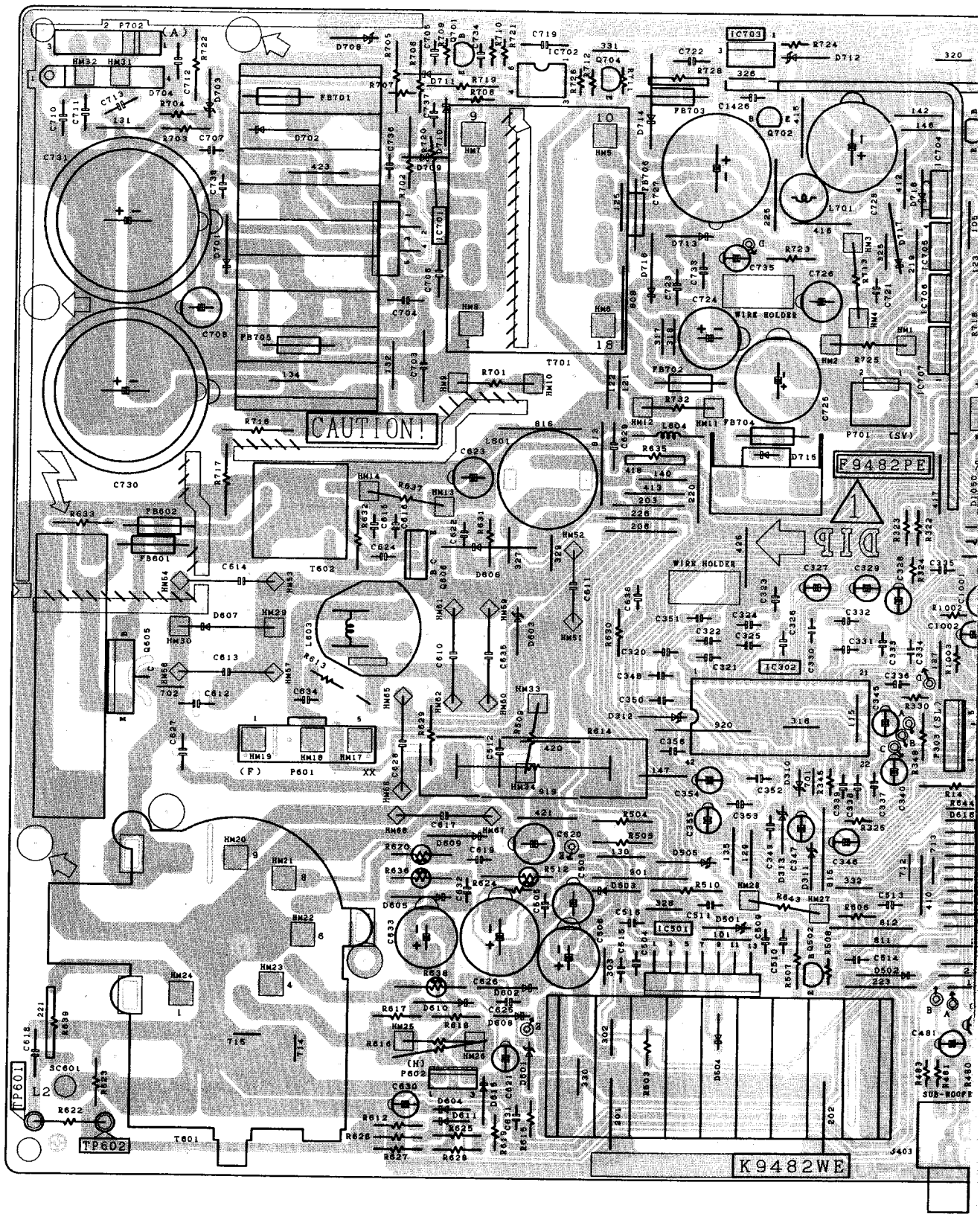
PWB-H:VM Unit (Wiring Side)

印刷电路板－H：VM电路装置
（线路贴置侧）

7	8	9	10	11	12

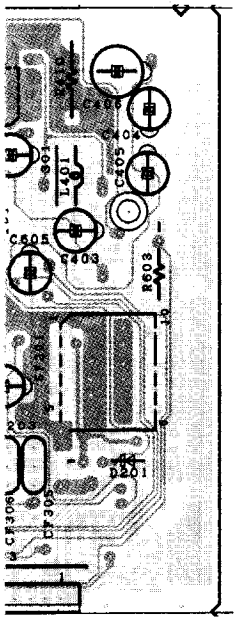
PRINTED WIRING BOARD ASSEMBLIES

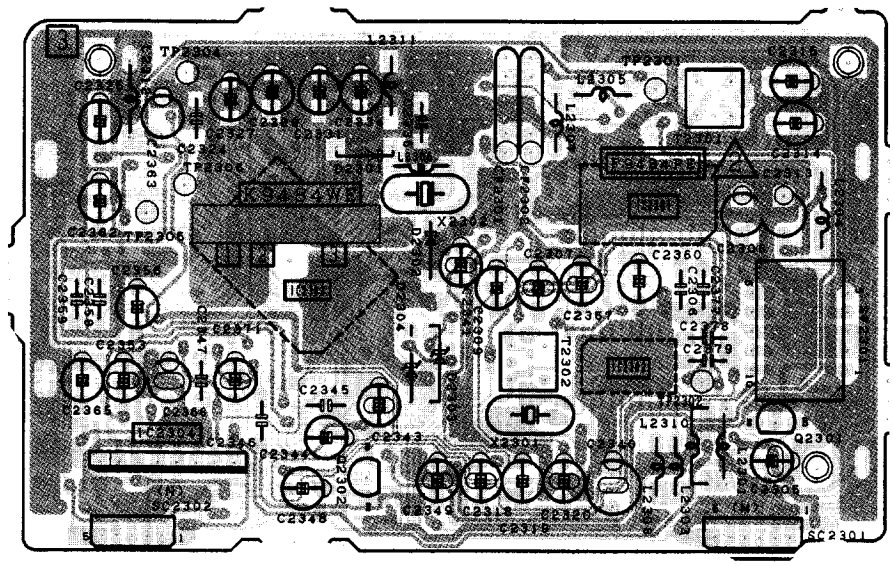
印刷电路板的组装件



PWB-A:Main 1 Unit (Wiring Side)

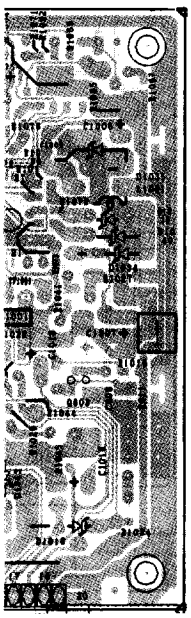
印刷电路板－**A**：主电路装置（线路贴置侧）

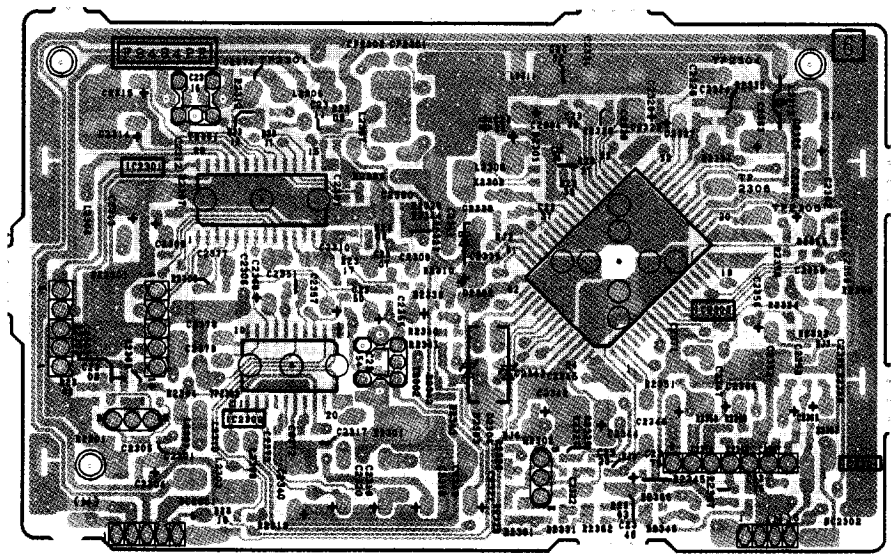




PWB-F:MPX Unit (Components Layer)

印刷电路板－F：MPX电路装置(部件装备侧)





PWB-F:MPX Unit (Chip Parts Layer)

印刷电路板－F：MPX电路装置(箔片贴置侧)

	7	8	9	10	11	12

DESCRIPTION OF SCHEMATIC DIAGRAM

CAUTION: This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTES:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" ([redacted]) ARE IMPOTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (— · —) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTES:

1. *The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Meg ohm).*
2. *All resistors are 1/8 watt, unless otherwise noted.*
3. *All capacitors are μF, unless otherwise noted. (P = μμF).*
4. *The diodes, whose parts code is not described, are the 1SS119.*

VOLTAGE MEASUREMENT CONDITIONS:

1. *The voltage without parenthesis represent the value measured with PAL colour signal.*
2. *The voltage in parenthesis represent the value measured with no signal.*
3. *All the voltages were measured by using a high impedance voltmeter.*

WAVEFORM MEASUREMENT CONDITIONS:

1. *The colour bar signal of 1.0Vp-p is applied to the pin (24) of IC201.*
2. *The tuner AGC voltage is approximately 4V.*

电路原理图的说明

注意：这里的电路原理图均为最初设计原图，与您的机器的电路原理可能有不同之处。

安全注意事项：

1. 更换电路元件时，必须先拔出电源插头，切断电源。
2. 机芯底盘电路处工作状态时，应注意电路中半导体元件散热片高电位可能导致的电击危险。

安全使用注意要点：

标有"⚠"（[redacted]）的元件为对保证本机长久的安全使用起重要的元件。更换这些元件时，必须使用规定的纯正正牌元件，以保证本机的使用安全以及使用寿命。

维修注意事项：

电路中由点划线（——·——）所围部分为与交流电源直接相接线路。对这些部分的线路进行维修时，应于本机与交流电源之间用隔离变压器相接，以防止不意的电击之危险。

电路单位说明：

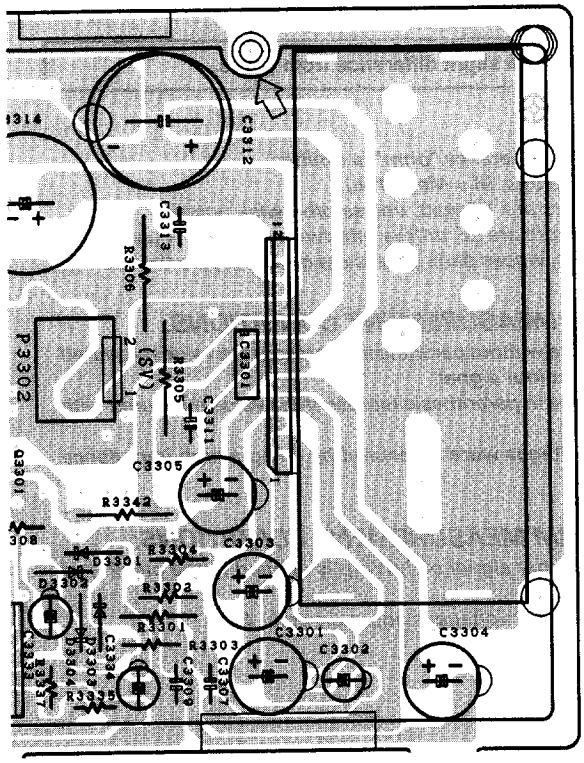
1. 电阻欧姆(Ω)单位予以略记（K=千欧姆，M=兆欧姆）。
2. 除特别说明者外，图中电阻功率均为1/8瓦特。
3. 除特别说明者（P=微微法拉）外，图中电容单位均为μF(微法拉)。
4. 除特别说明者外，图中二极管均为1SS119。

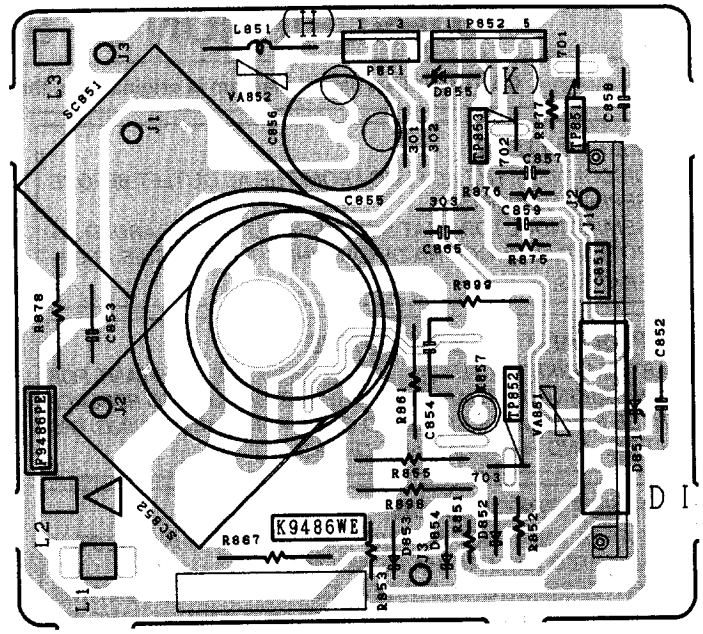
电压测定条件：

1. 括号外的电压值为PAL制式彩色信号状态下所测。
2. 括号中的电压值为无信号状态下所测。
3. 所有的电压值均由高阻抗电压计所测。

波形测定条件：

1. 1.0Vp-p的彩色信号施加于IC201的引脚(24)。
2. 调谐器AGC(自动增益控制)电压约为4V。

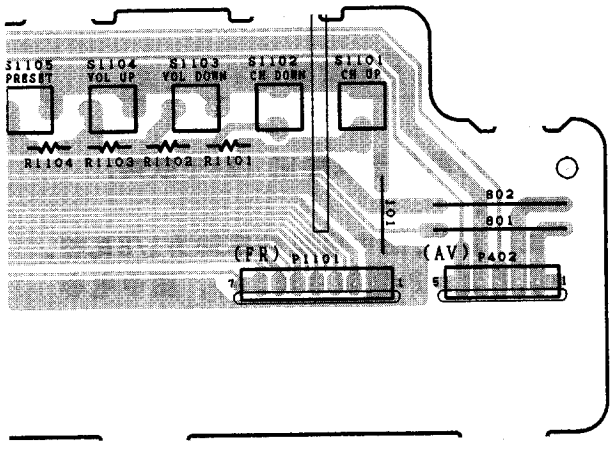


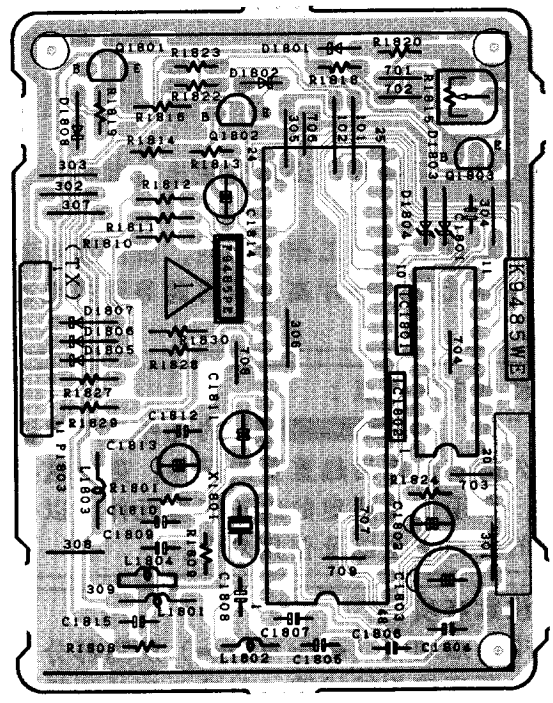


PWB-C:CRT Unit (Wiring Side)

印刷电路板－C：CRT电路装置(线路贴置侧)

)

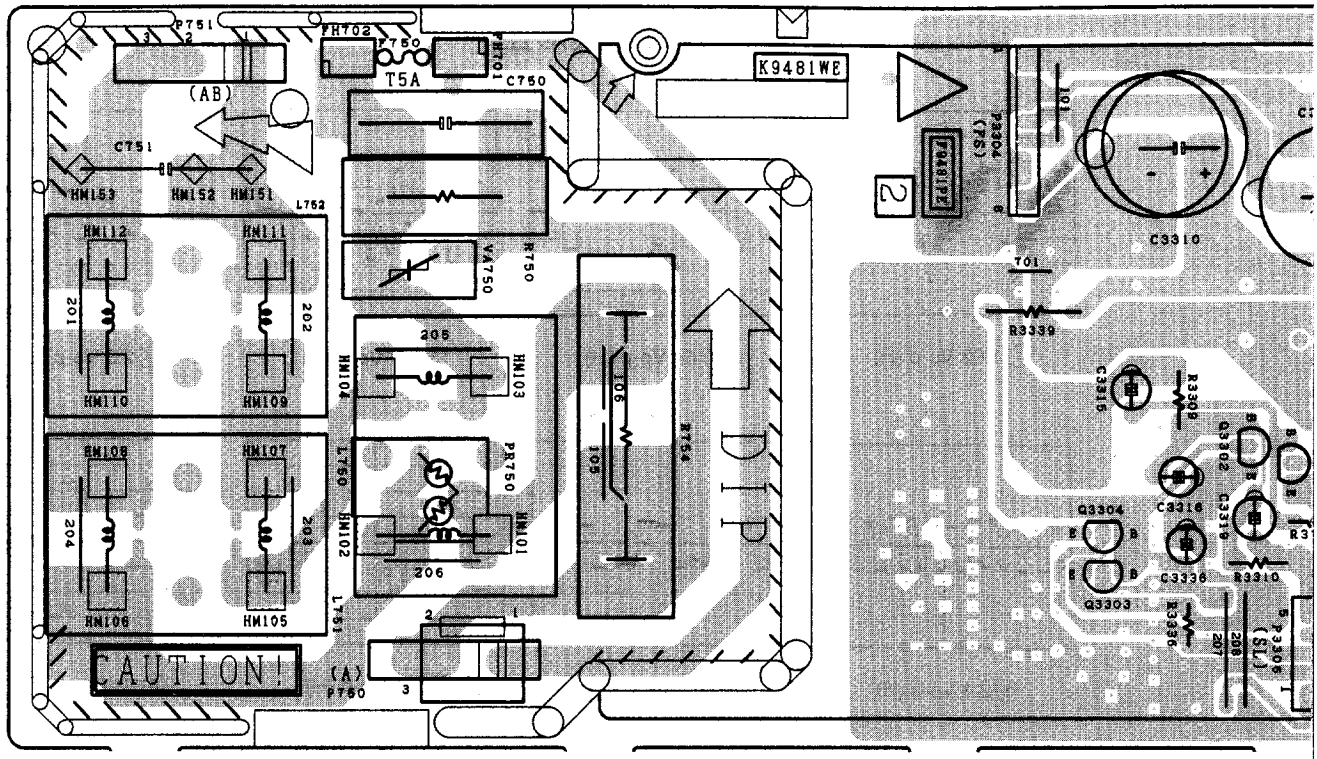




PWB-G:TEXT Unit (Wiring Side)

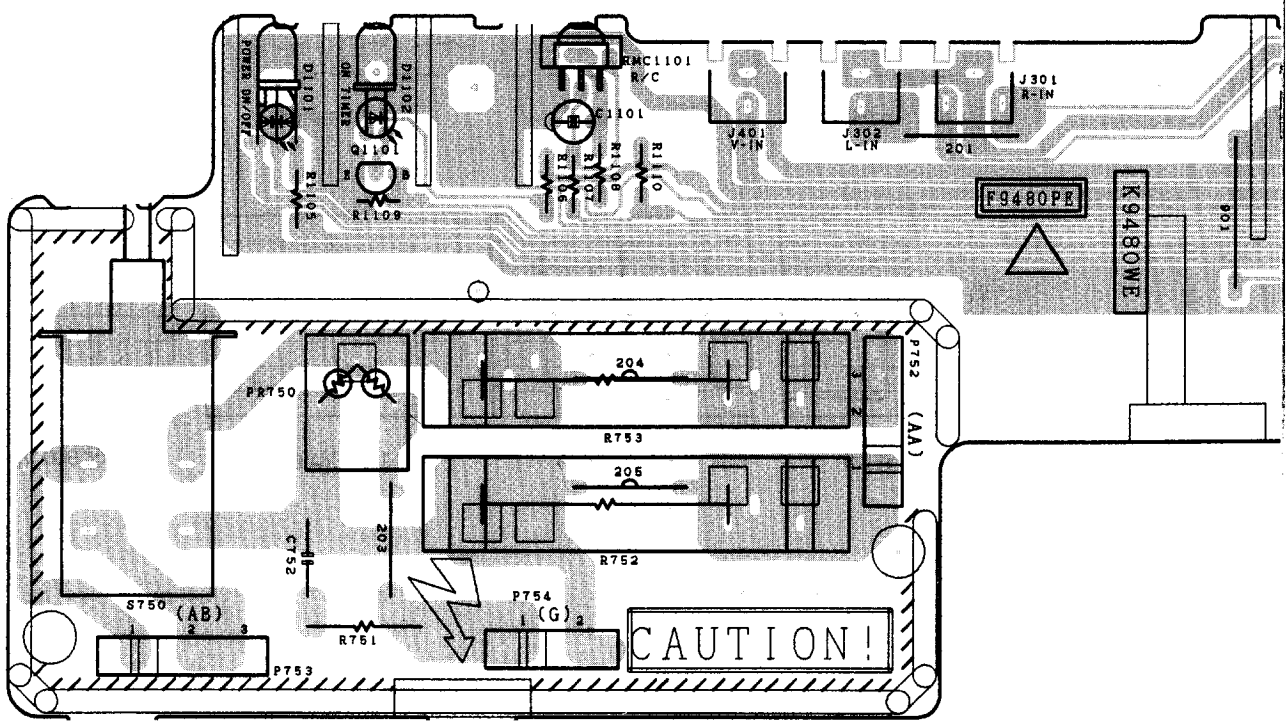
印刷电路板－G：TEXT电路装置(线路贴置侧)

7	8	9	10	11	12



PWB-E:S-OUT Unit (Wiring Side)

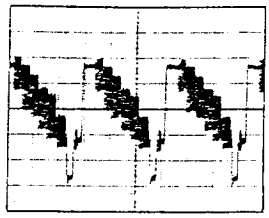
印刷电路板－E：扬声器输出电路装置(线路贴置侧



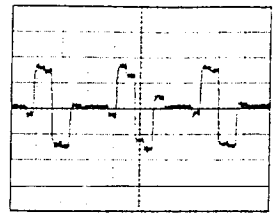
PWB-D:Front Unit (Wiring Side)

印刷电路板－D：前面电路装置(线路贴置侧)

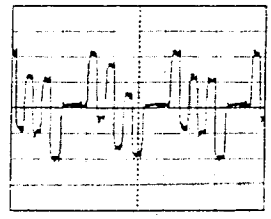
WAVEFORMS
波形图



① 1.02 Vp-p (H)

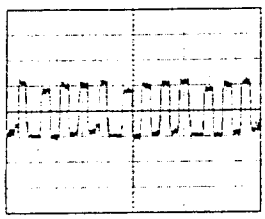


② 0.64 Vp-p (H)

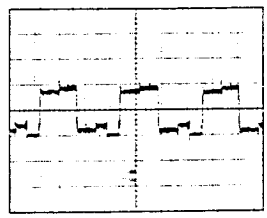


③ 0.9 Vp-p (H)

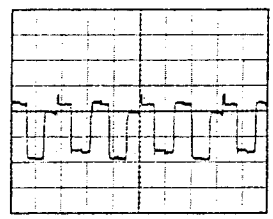
④ 2.8 Vp-p (H)



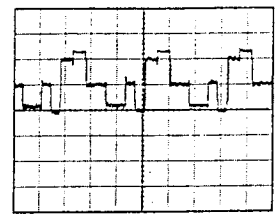
⑤ 2.4 Vp-p (H)



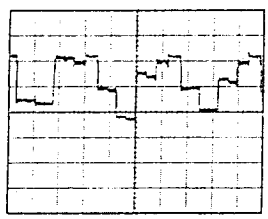
⑥ 2.3 Vp-p (H)



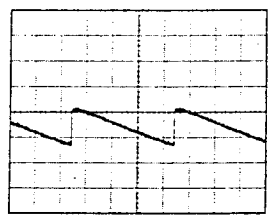
⑦ 120 Vp-p (H)



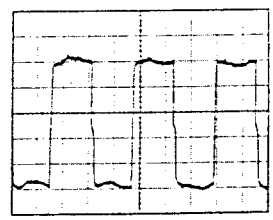
⑧ 130 Vp-p (H)



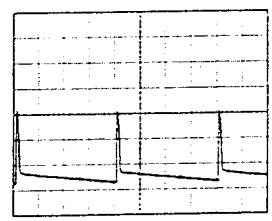
⑨ 120 Vp-p (H)



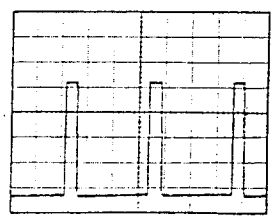
⑩ 1.3 Vp-p (V)



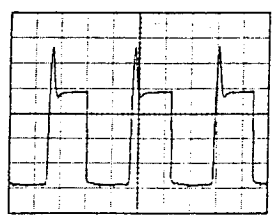
⑪ 5.2 Vp-p (H)



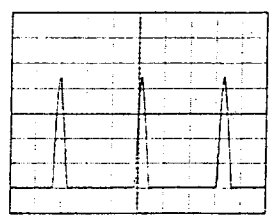
⑫ 56 Vp-p (V)



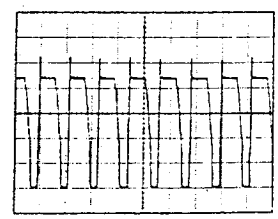
⑬ 9.2 Vp-p (H)



⑭ 28 Vp-p (H)



⑮ 1150 Vp-p (H)



⑯ 500 Vp-p

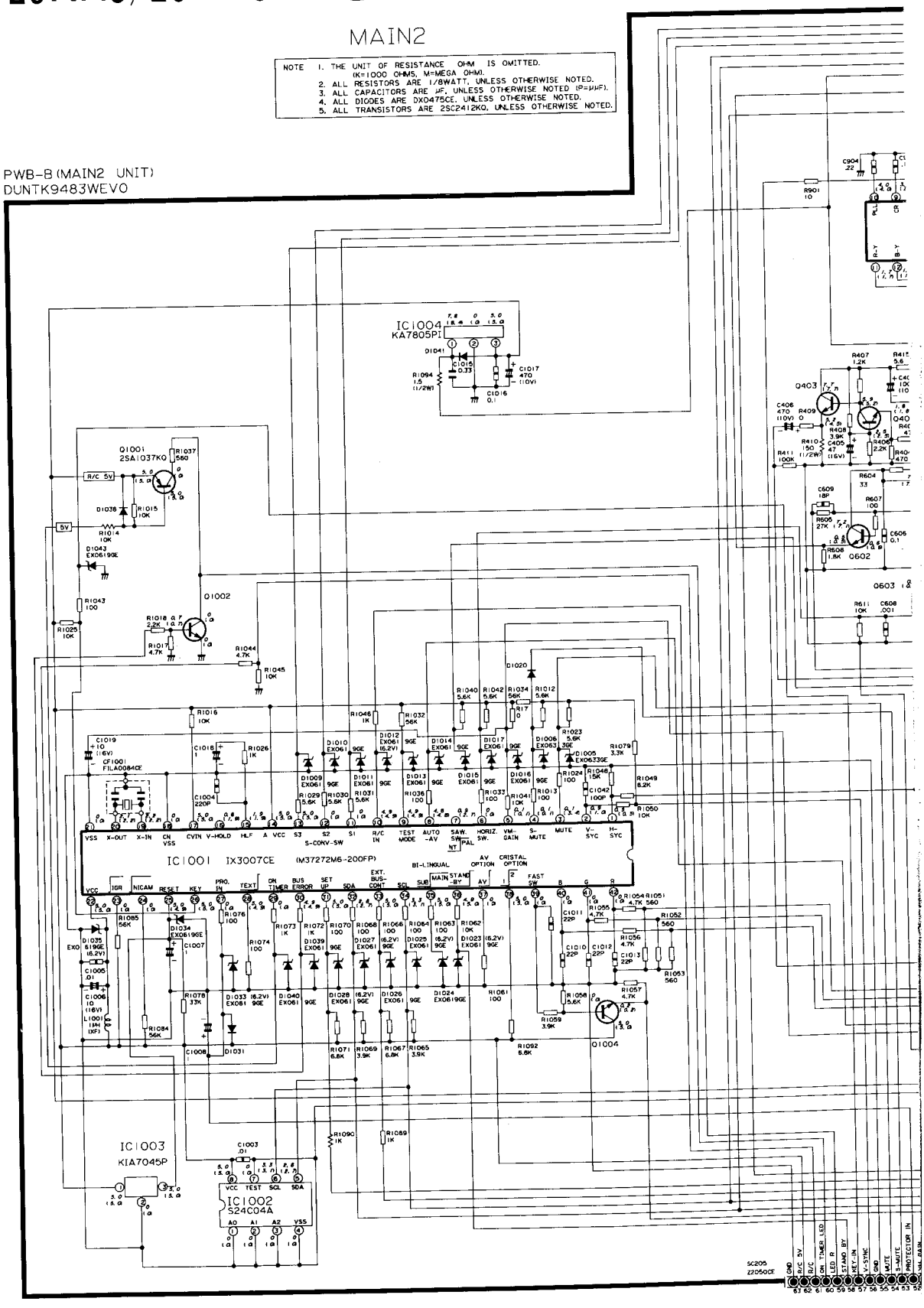
MODEL 29RN5/29RN5RU SCHEMATIC DIAGRAM ■ Main 2

型号29RN5/29RN5RU电路原理图 ■ 主电路装置2

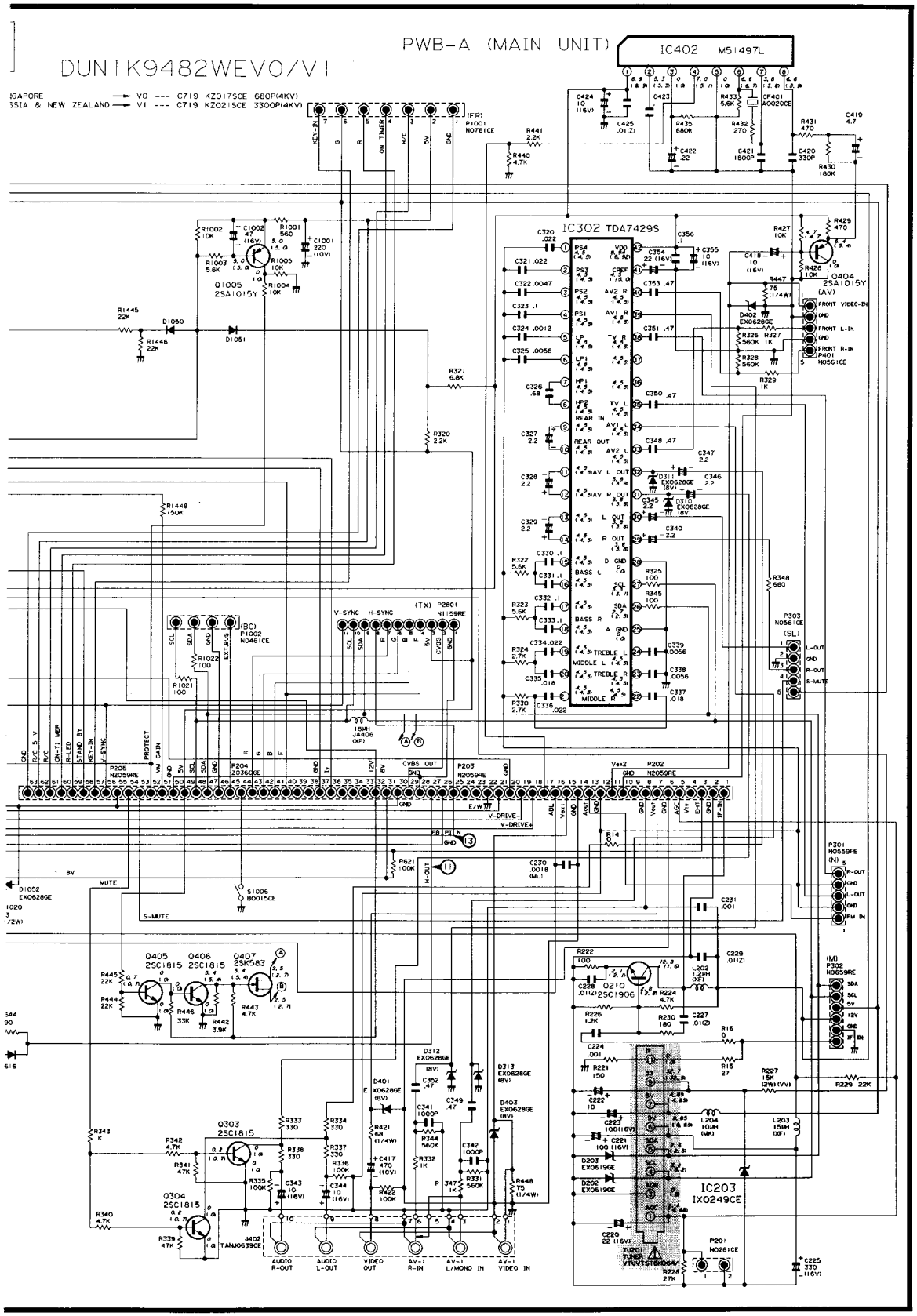
MAIN2

NOTE 1. THE UNIT OF RESISTANCE OHM IS OMITTED.
(K=1000 OHMS, M=MEGA OHM).
2. ALL RESISTORS ARE 1/8WATT, UNLESS OTHERWISE NOTED.
3. ALL CAPACITORS ARE μF, UNLESS OTHERWISE NOTED (P=μμF).
4. ALL DIODES ARE DX0475CE, UNLESS OTHERWISE NOTED.
5. ALL TRANSISTORS ARE 2SC2412KQ, UNLESS OTHERWISE NOTED.

PWB-B (MAIN2 UNIT)
DUNTK9483WEVO



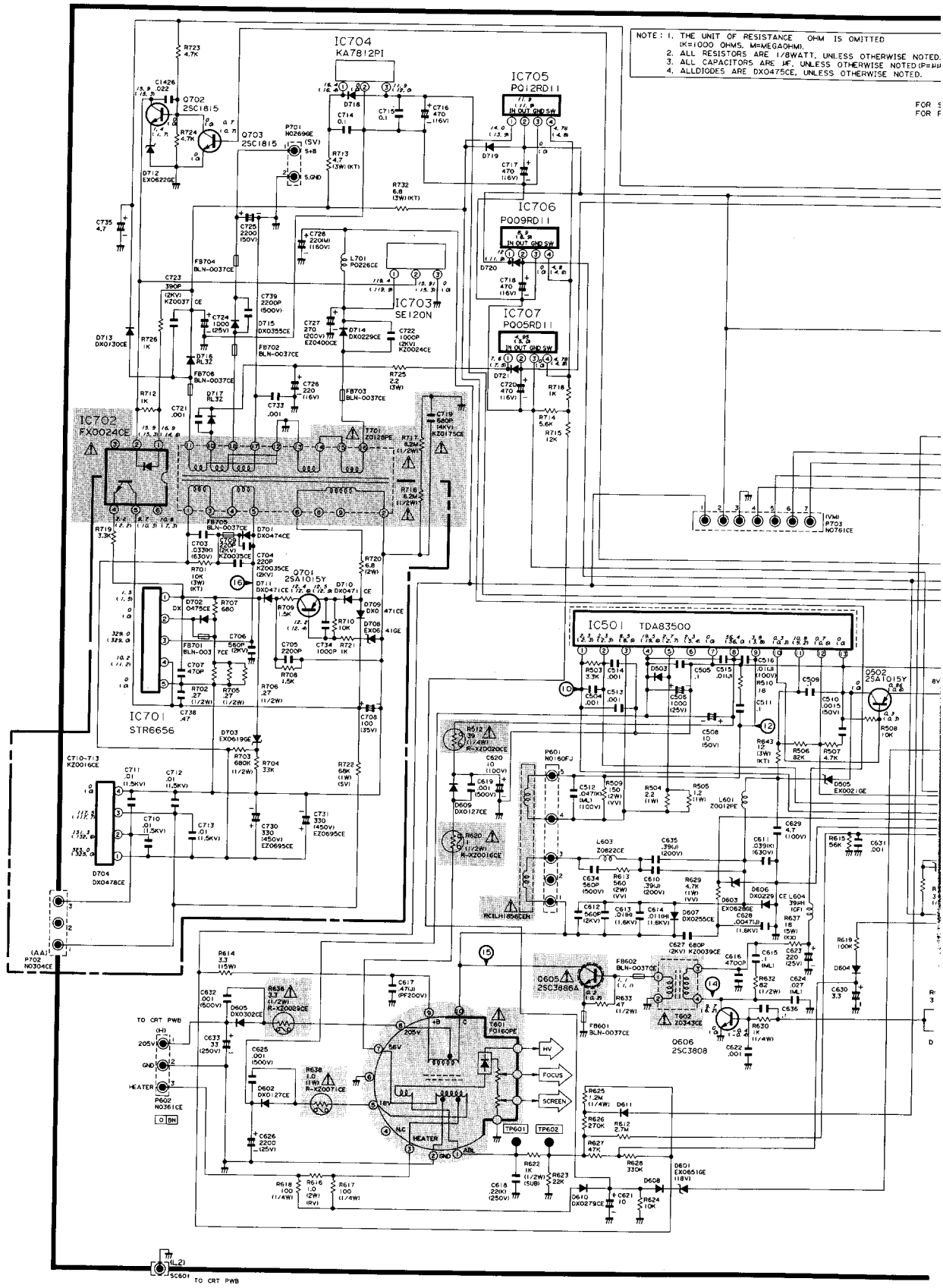
ıit



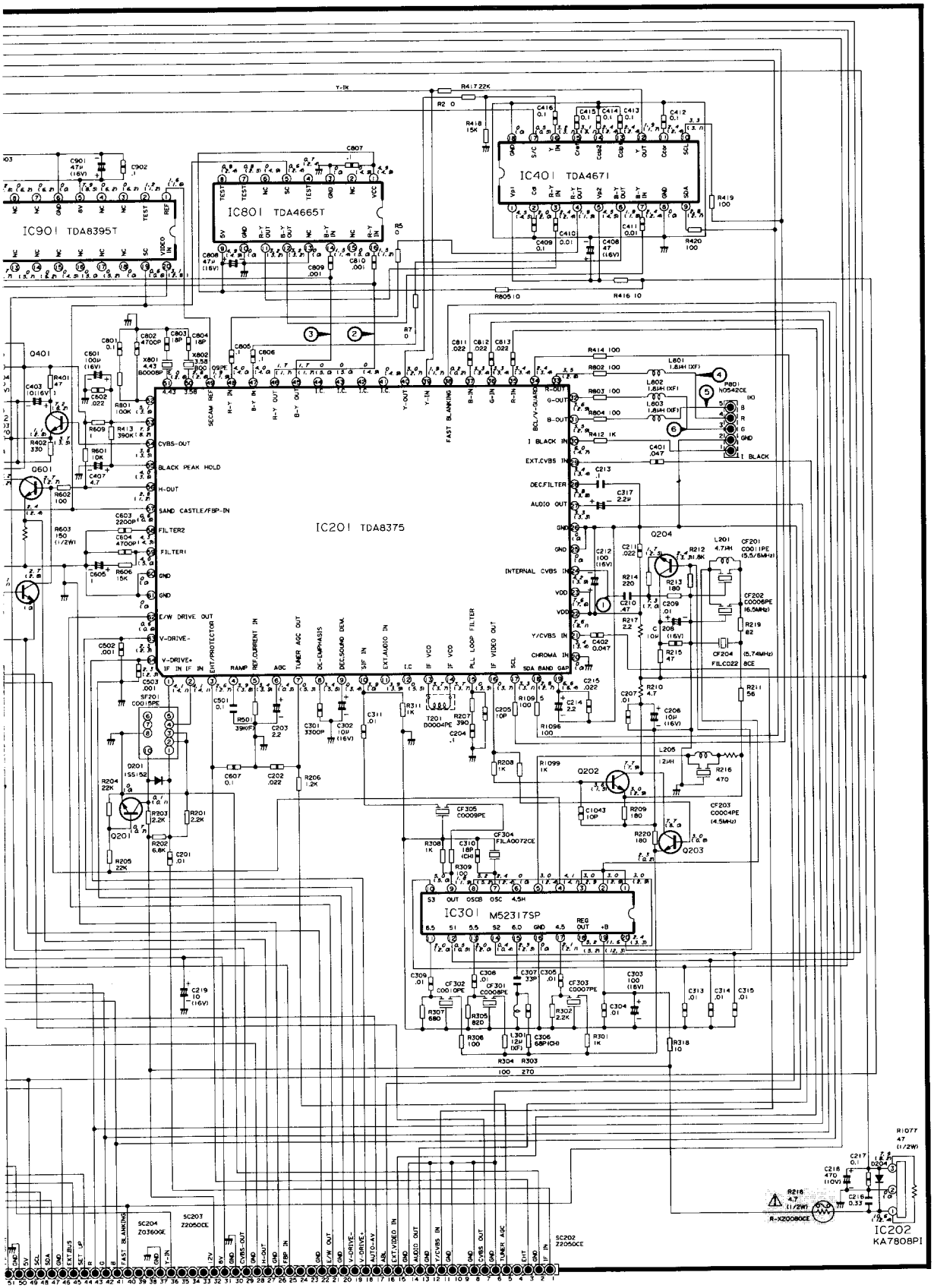
7	8	9	10	11	12

MODEL 29RN5/29RN5RU SCHEMATIC DIAGRAM ■ Main 1 U

型号29RN5/29RN5RU电路原理图 ■ 主电路装置1



Unit



	7	8	9	10	11	12

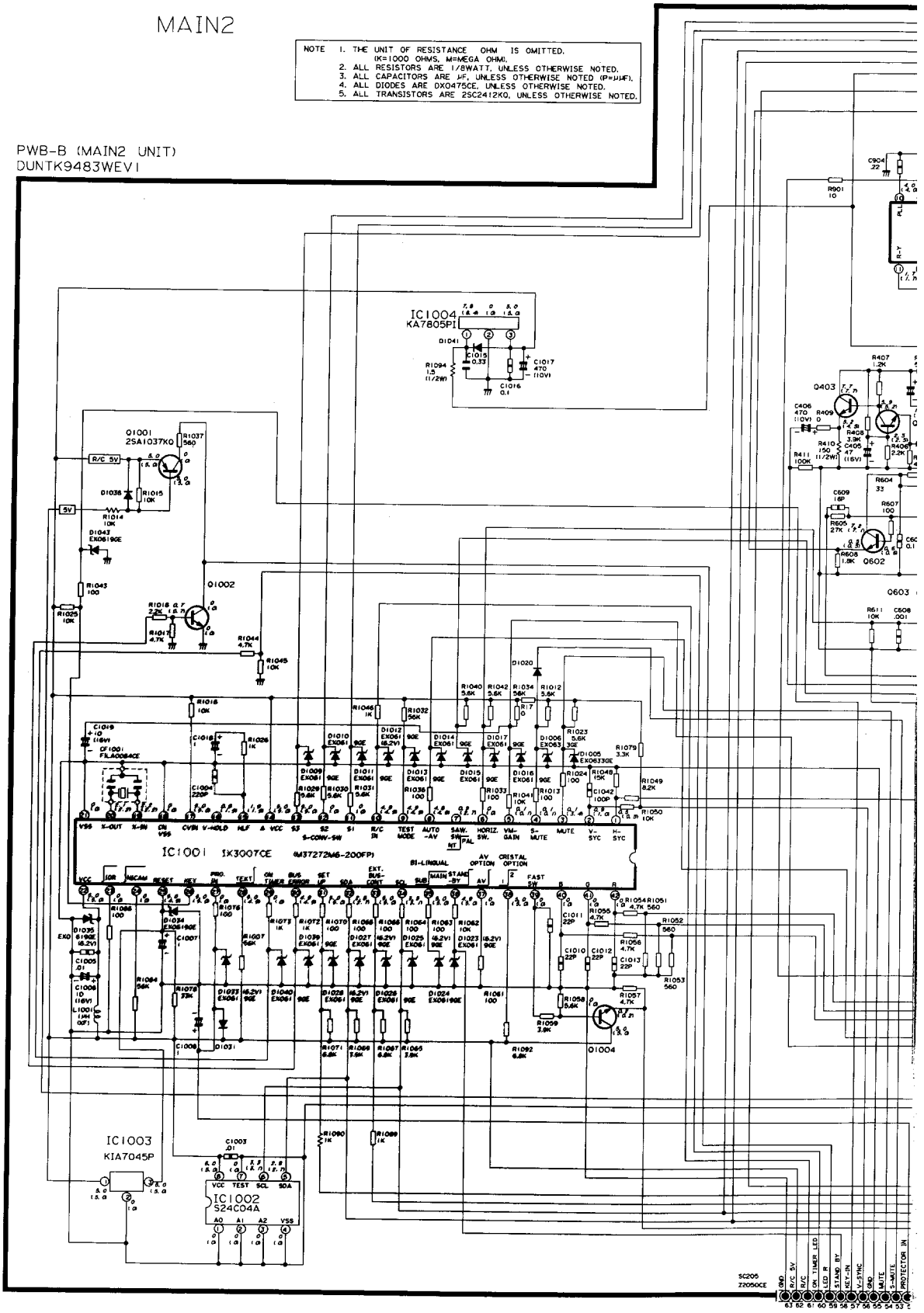
MODEL 29RN8 SCHEMATIC DIAGRAM ■ Main 2 Unit

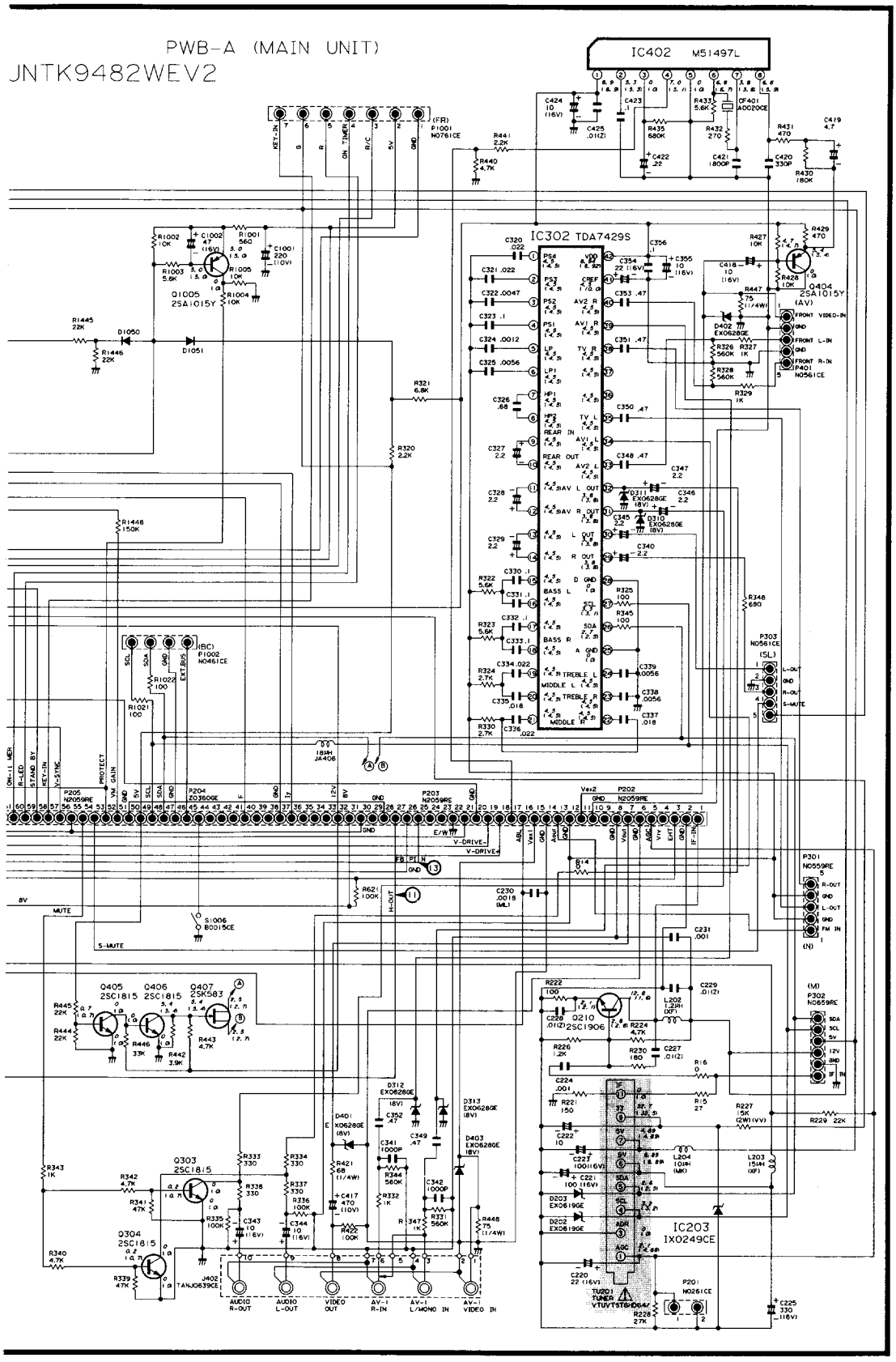
型号29RN8电路原理图 ■ 主电路装置2

MAIN2

NOTE 1. THE UNIT OF RESISTANCE OHM IS OMITTED.
(K=1000 OHMS, M=MEGA OHM).
2. ALL RESISTORS ARE 1/8WATT, UNLESS OTHERWISE NOTED.
3. ALL CAPACITORS ARE μF, UNLESS OTHERWISE NOTED (P=μμF).
4. ALL DIODES ARE DX0475CE, UNLESS OTHERWISE NOTED.
5. ALL TRANSISTORS ARE 2SC2412K0, UNLESS OTHERWISE NOTED.

PWB-B (MAIN2 UNIT)
DUNTK9483WEV1

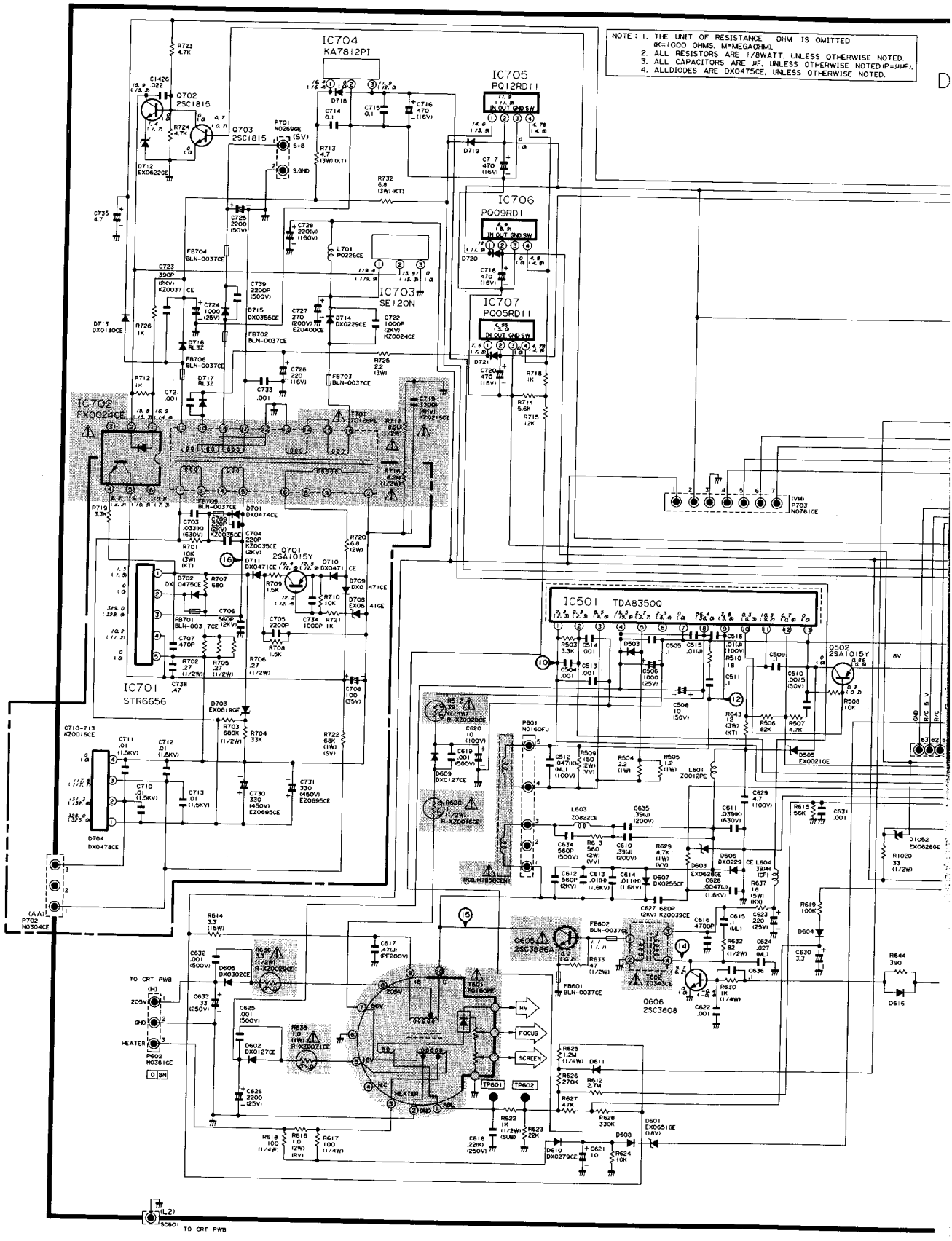


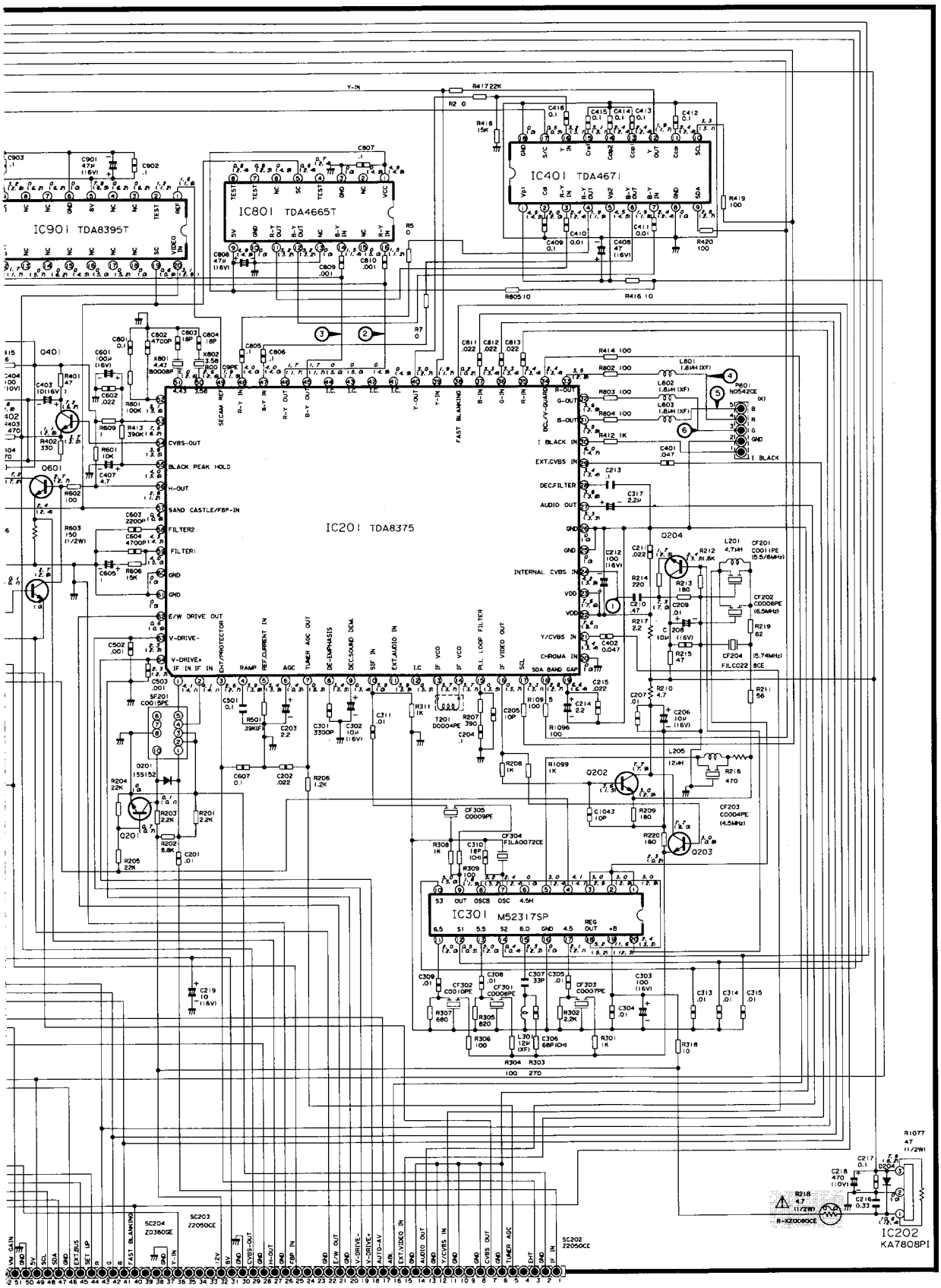

PWB-A (MAIN UNIT)
JNTK9482WEV2
IC402 M51497L
IC302 TDA7429S
IC203 IX0249CE
Q1005 2SA1015Y
Q0404 2SA1015Y
Q0405 2SC1815
Q0406 2SC1815
Q0407 2SK583
Q0210 2SC1906
Q0303 2SC1815
Q0304 2SC1815
P1001 NO761CE
P1002 NO461CE
P205 NO559RE
P204 ZO350GE
P203 NO259RE
P202 NO259RE
P303 NO561CE
P302 NO659RE
P301 NO559RE
P402 NO561CE
P201 NO261CE
J402 TANJO639CE
S1006 BO015CE
AUDIO R-OUT
AUDIO L-OUT
VIDEO OUT
AV-1 R-IN
AV-1 L/MONO IN
AV-1 VIDEO IN
FRONT VIDEO-IN
FRONT L-IN
FRONT R-IN
L-OUT
R-OUT
S-MUTE
FM IN
IF IN
MUTE
V-DRIVE-
V-DRIVE+

7	8	9	10	11	12

MODEL 29RN8 SCHEMATIC DIAGRAM ■ Main 1 Unit

型号29RN8电路原理图 ■ 主电路装置1

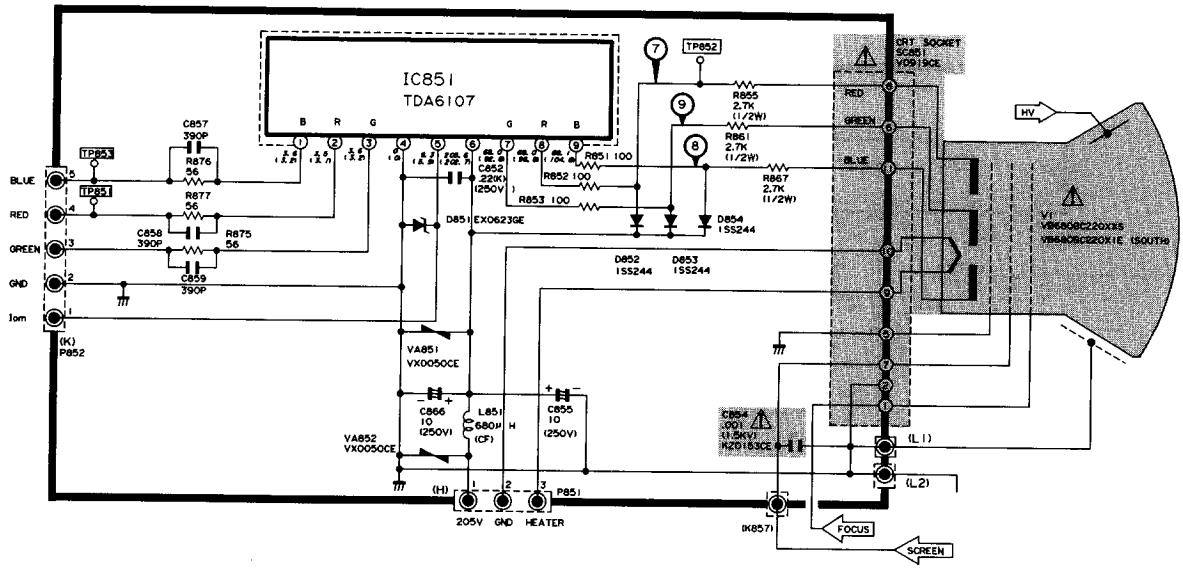



IC901 TDA8395T
IC801 TDA4665T
IC401 TDA4671
IC201 TDA8375
IC301 M52317SP
IC202 KA7808P1
Q401
Q601
Q204
Q202
Q203
Q201
IC202
KA7808P1

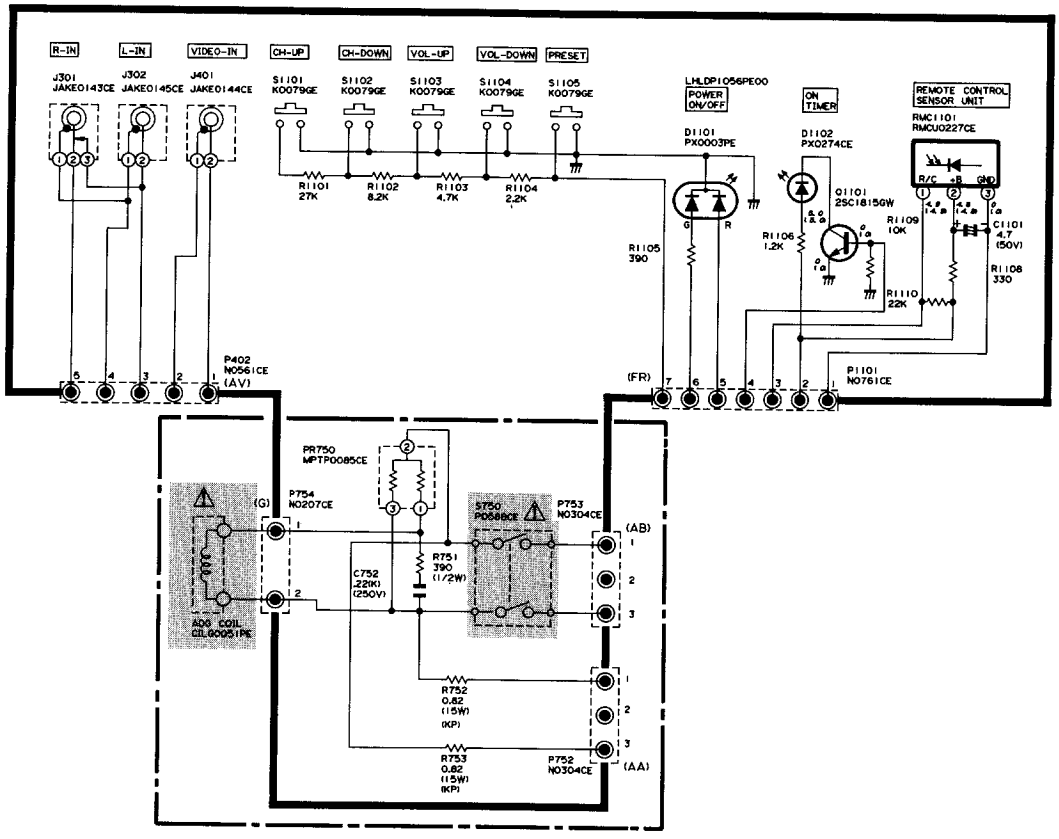
MODEL 29RN5/29RN5RU SCHEMATIC DIAGRAM ■ CRT / Fro

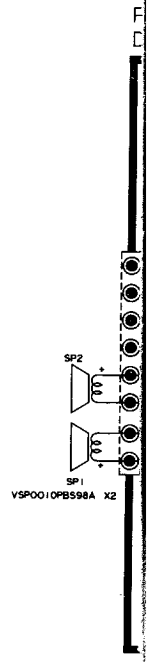
型号29RN5/29RN5RU电路原理图 ■ CRT/前面/扬声器输出电路

PWB-C (CRT UNIT)
DUNTK9486WEVO



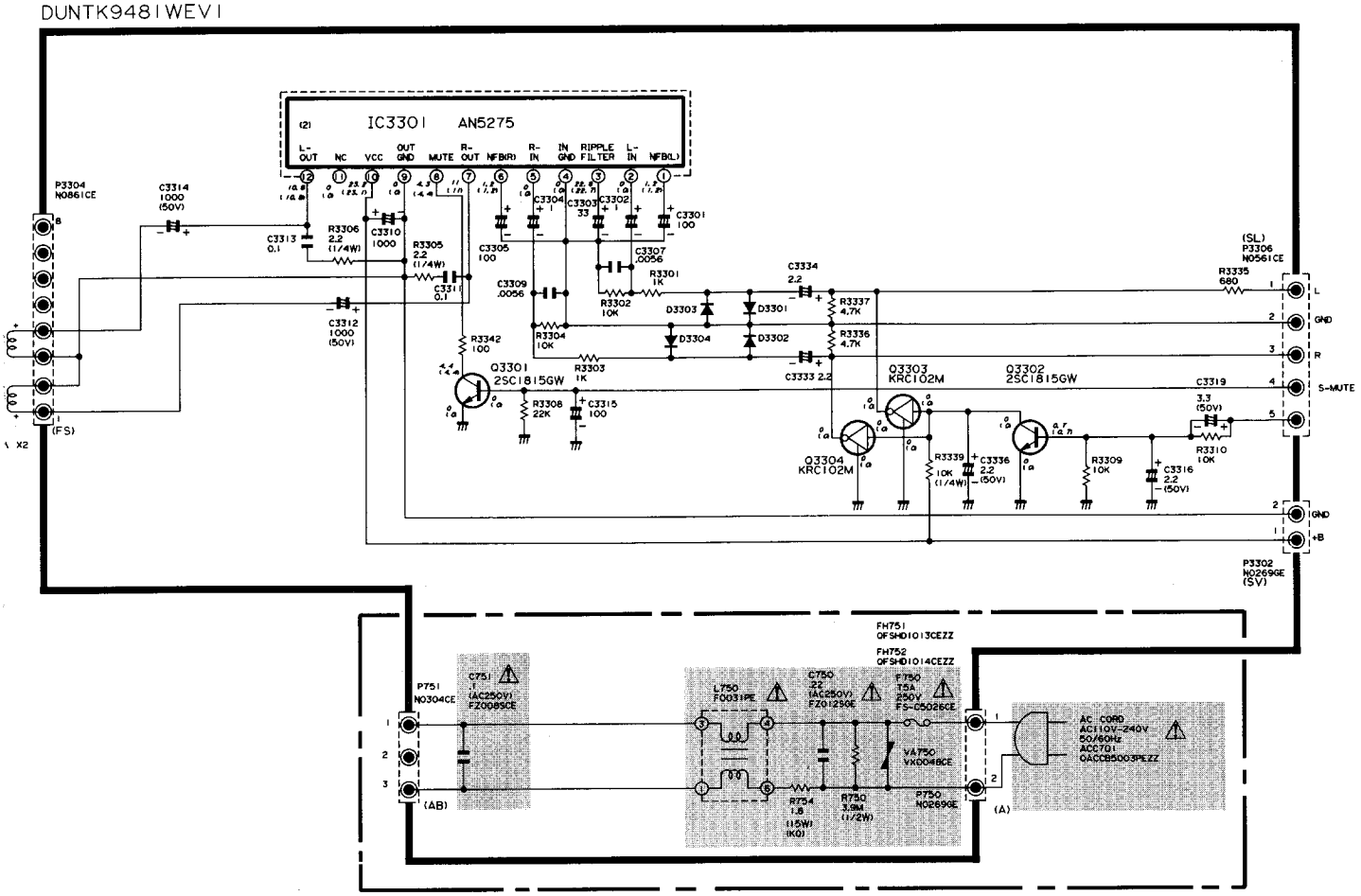
PWB-D (FRONT UNIT)
DUNTK9480WEVO





Unit

PWB-E (S-OUT UNIT)
DUNTK9481WEV1

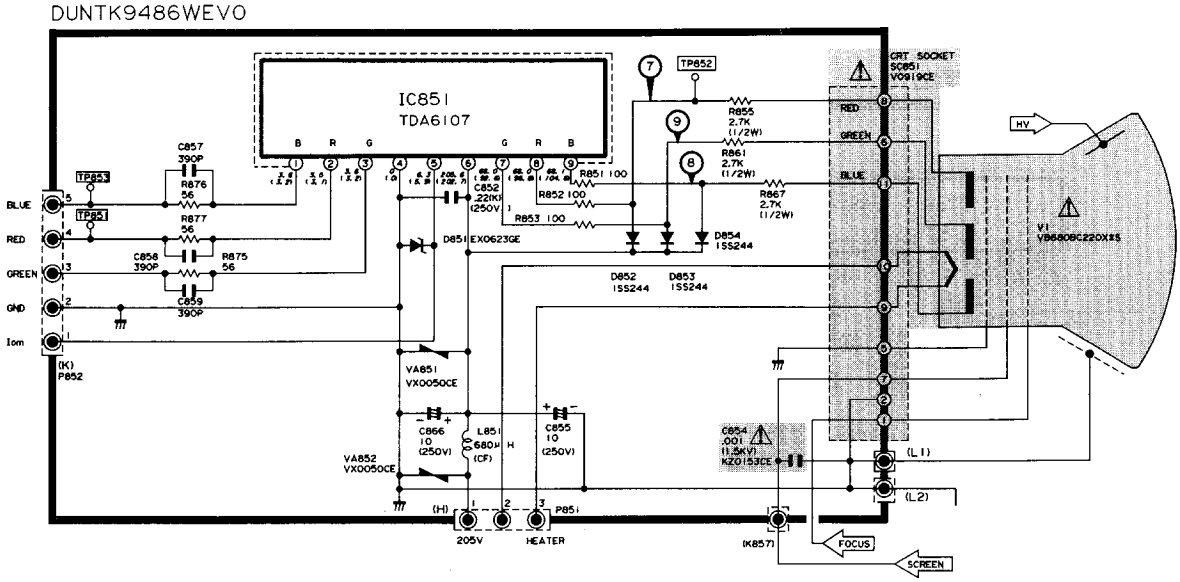


7	8	9	10	11	12

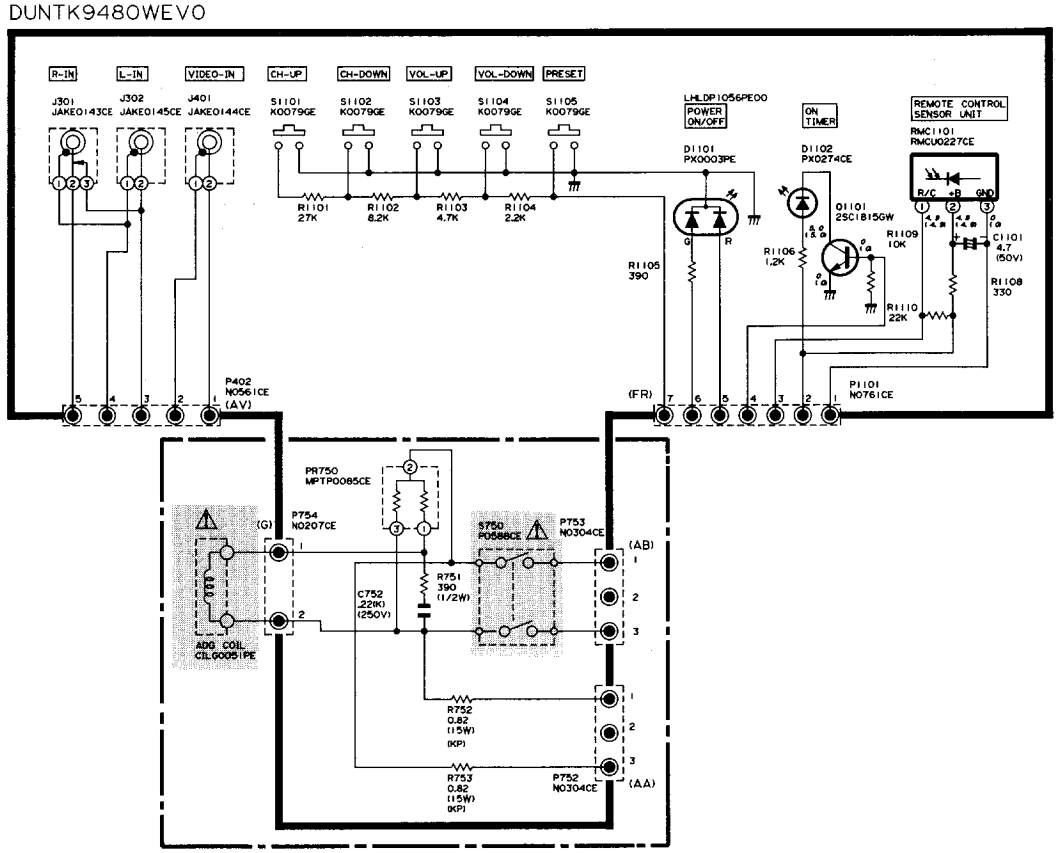
MODEL 29RN8 SCHEMATIC DIAGRAM ■ CRT / Front / S-OUT

型号29RN8电路原理图 ■ CRT/前面/扬声器输出电路装置

PWB-C (CRT UNIT)
DUNTK9486WEVO



PWB-D (FRONT UNIT)
DUNTK9480WEVO

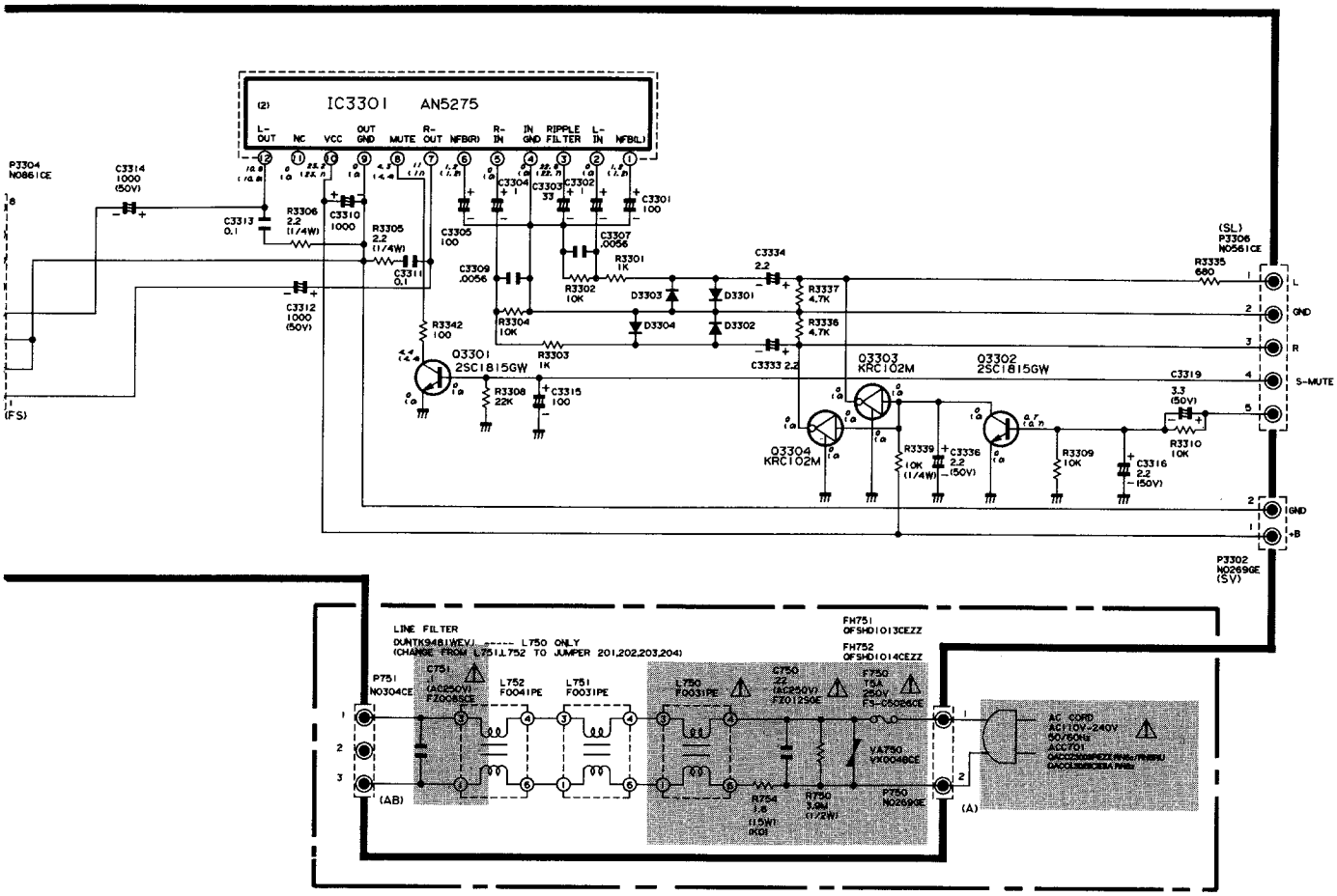


ɔnt / S-OUT Unit

;装置

'WB-E (S-OUT UNIT)
)UNTK9481WEV0/V1

V0 — 29RN5RU
V1 — 29RN5/29RN8



7	8	9	10	11	12

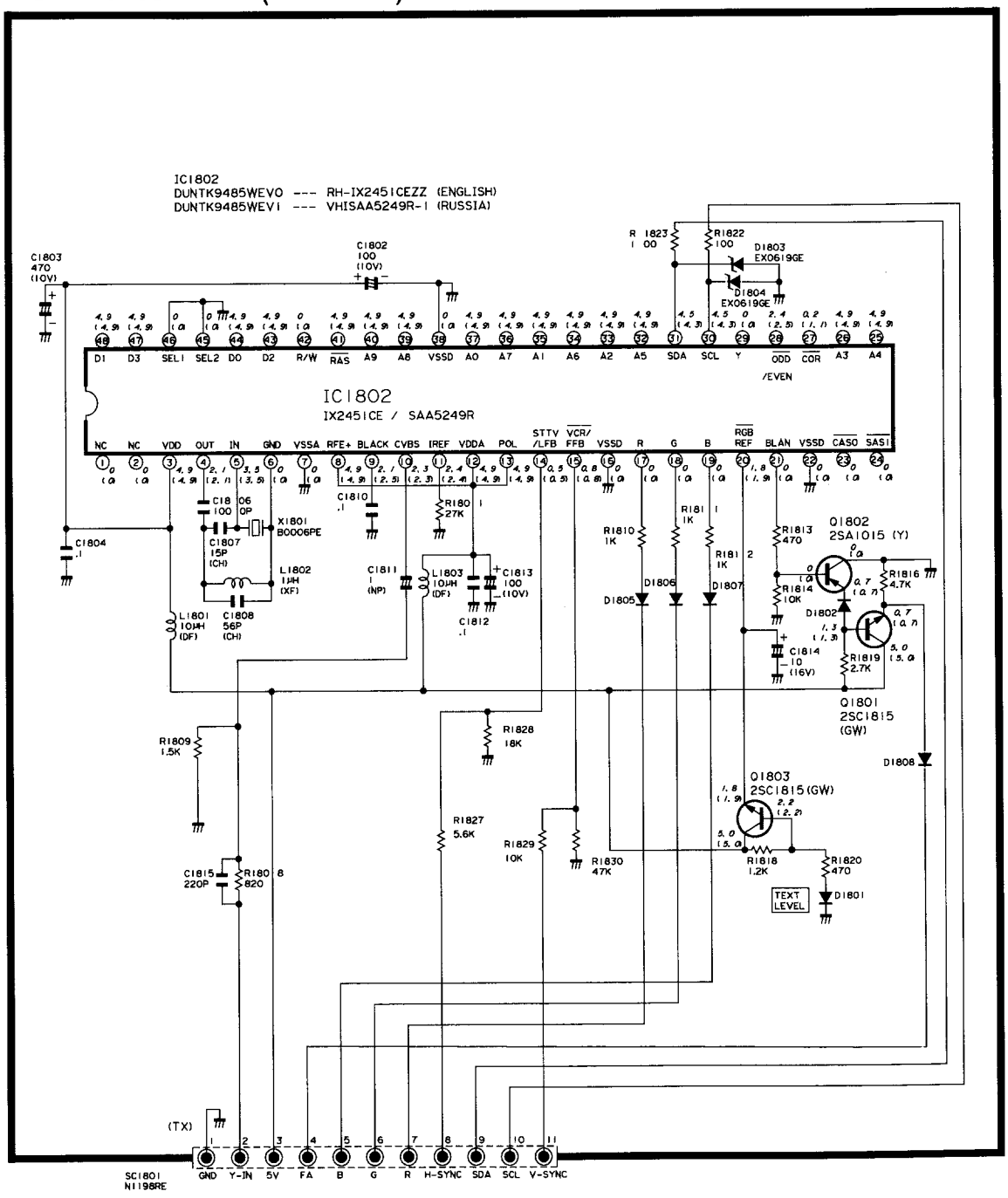
MODEL 29RN5/29RN5RU SCHEMATIC DIAGRAM ■ TEXT Unit

型号29RN5/29RN5RU电路原理图 ■ TEXT电路装置

NOTE : 1. THE UNIT OF RESISTANCE OHM IS OMITTED (K=1000 OHMS. M=MEGAOHM).
2. ALL RESISTORS ARE 1/8WATT, UNLESS OTHERWISE NOTED.
3. ALL CAPACITORS ARE μF,UNLESS OTHERWISE NOTED (P=μμF).
4. ALL DIODES ARE DX0475CE,OTHERWISE NOTED.

PWB-G (TEXT UNIT) TEXT

DUNTK9485WEV0 (29RN5c/z)
DUNTK9485WEV1 (29RN5RU)

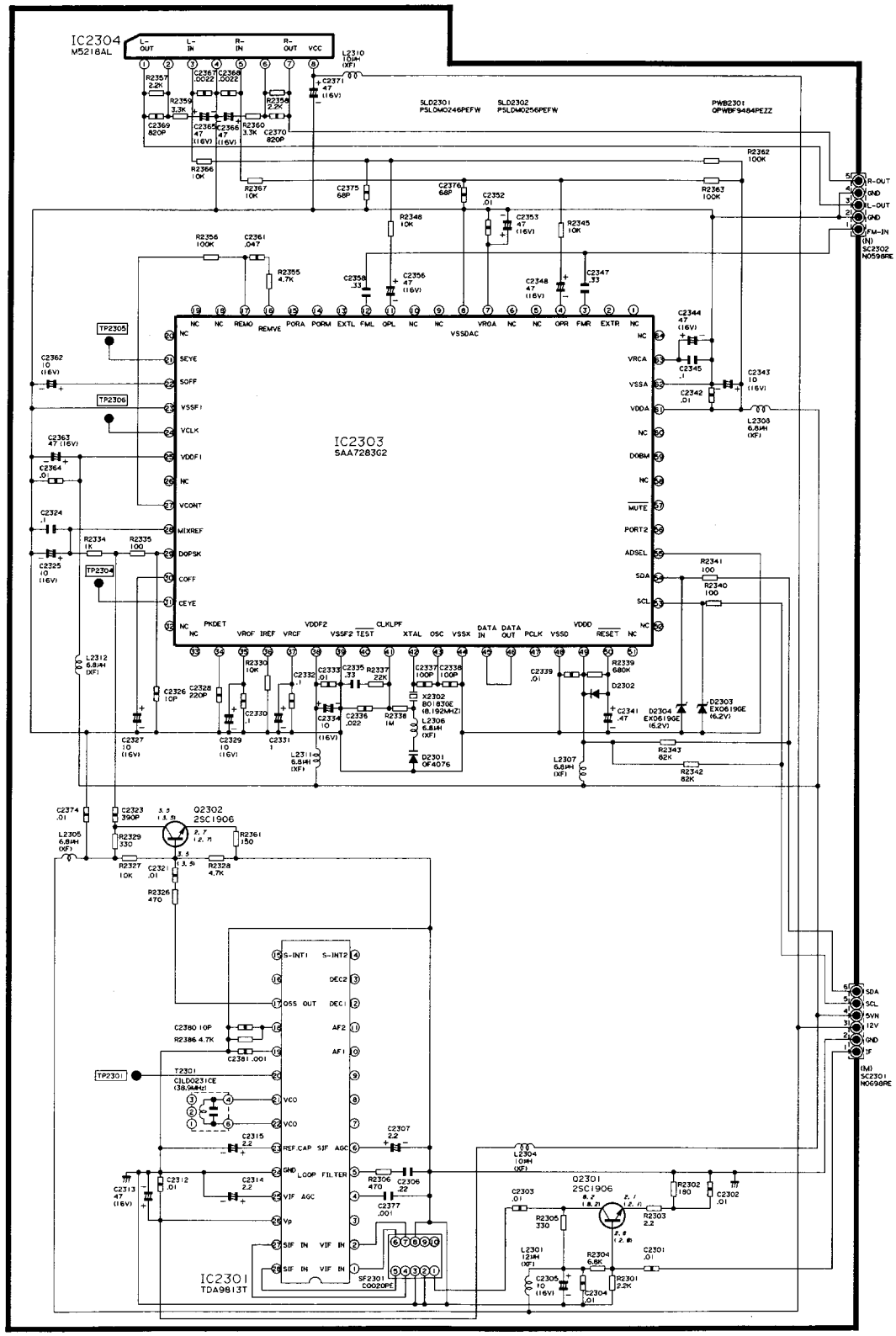


(MODEL 29RN8)
(型号29RN8)

RUNTK0009PEZZ MPX

PWB-F (MPX-UNIT)

NOTE : 1. THE UNIT OF RESISTANCE OHM IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2. ALL RESISTORS ARE 1/8WATT, UNLESS OTHERWISE NOTED.
3. ALL CAPACITORS ARE μF,UNLESS OTHERWISE NOTED (P=pμF).
4. ALL DIODES ARE DX0475CE ,UNLESS OTHERWISE NOTED.



7	8	9	10	11	12

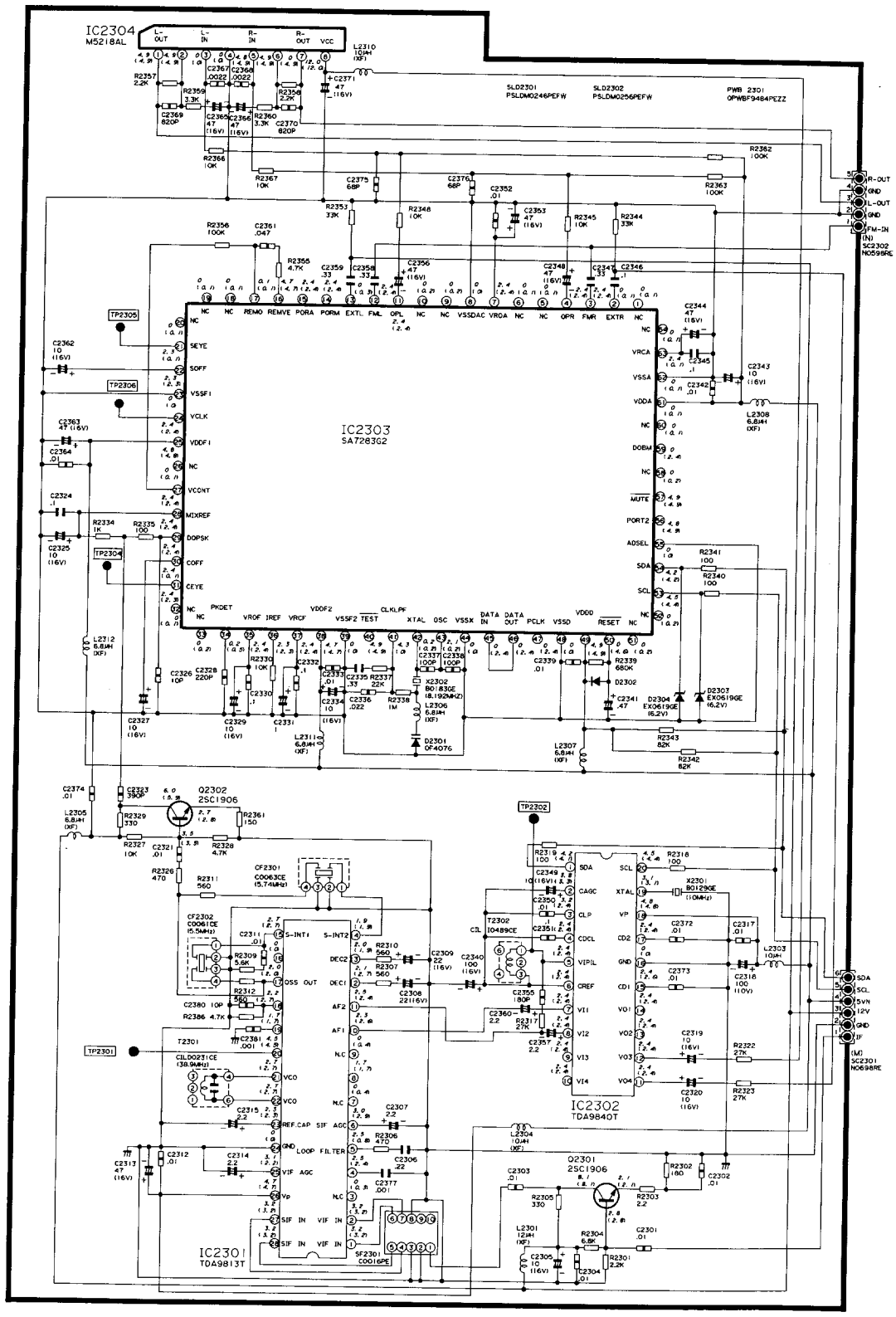
SCHEMATIC DIAGRAM ■ MPX Unit (MODEL 29RN5/29RN5RU)

电路原理图 ■ MPX电路装置 (型号29RN5/29RN5RU)

RUNTK0008PEZZ MPX

PWB-F (MPX-UNIT)

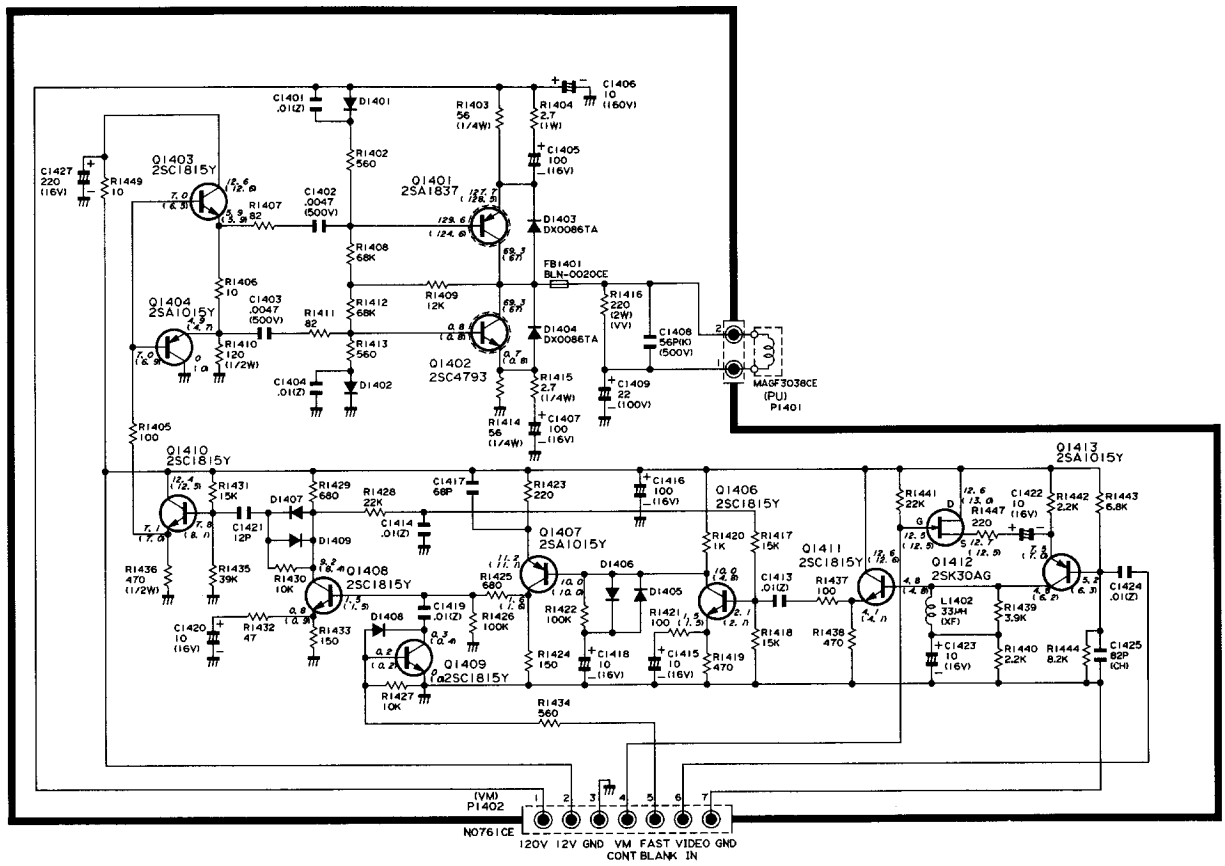
NOTE : 1. THE UNIT OF RESISTANCE OHM IS OMITTED (K=1000 OHMS, M=MEGAOHM).
2. ALL RESISTORS ARE 1/8WATT, UNLESS OTHERWISE NOTED.
3. ALL CAPACITORS ARE μF,UNLESS OTHERWISE NOTED (P=μμF).
4. ALL DIODES ARE DX0475CE .UNLESS OTHERWISE NOTED.



SCHEMATIC DIAGRAM ■ VM Unit

电路原理图 ■ VM电路装置

PWB-H (VM UNIT)
DUNTK9547WEVO



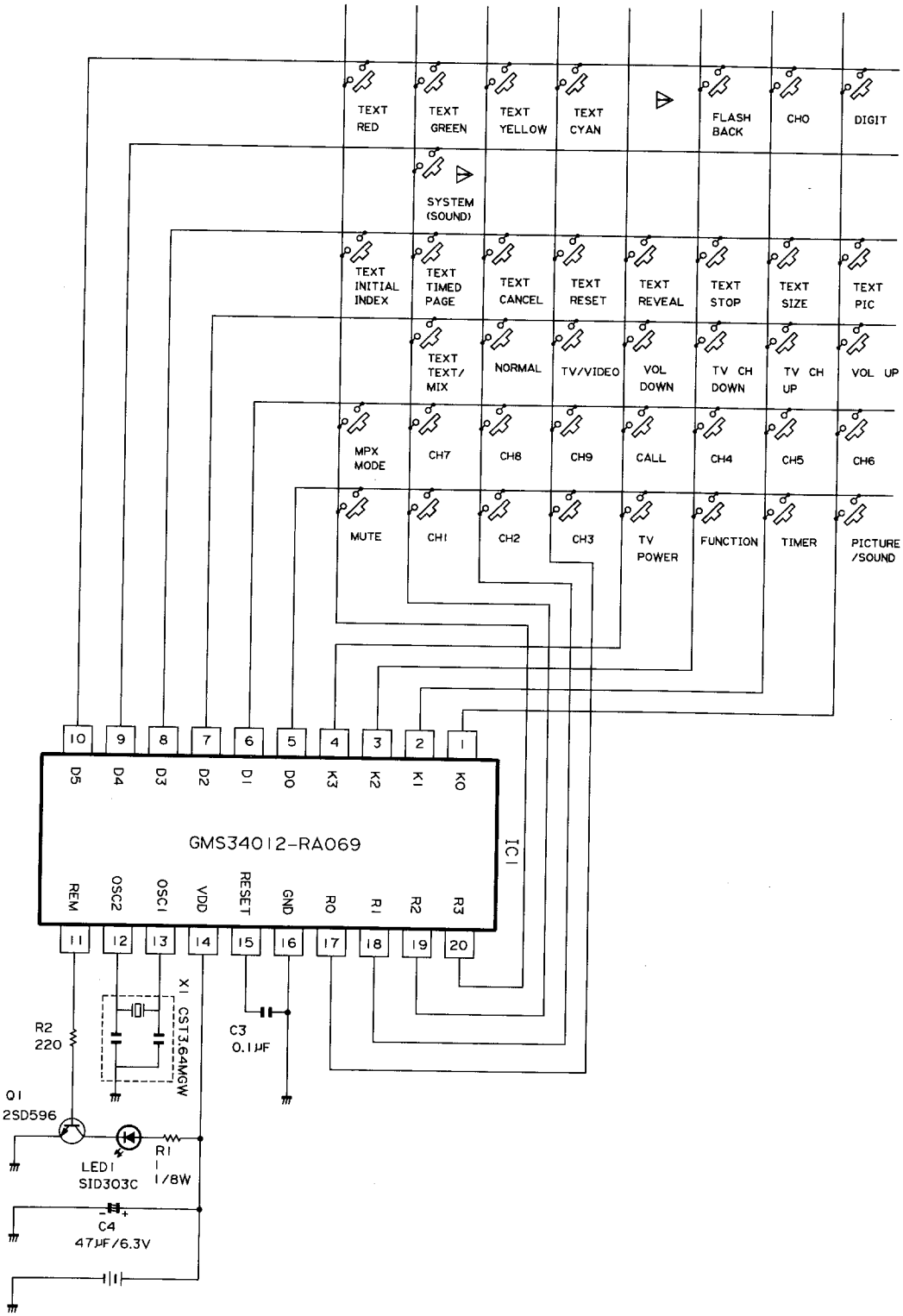
■ Infrared Rmote Control Unit

红外线遥控器

NOTE: The parts here shown are supplied as an assembly but not independently.

注意：在更换零件订货时，请以一套为最小单位，切勿以单件订货。

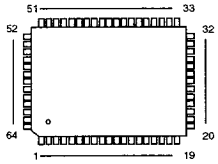
RRMCG1385PESA



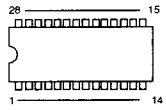
SOLID STATE DEVICE BASE DIAGRAM

固体器件基座图

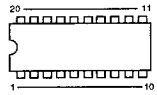
TOP VIEW 俯视图



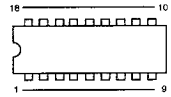
SAA7283G
TDA8375



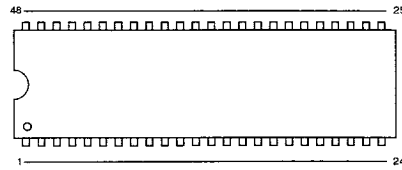
TDA9813



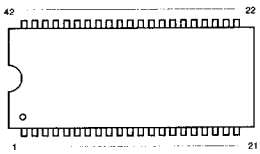
M52317SP



TDA4671

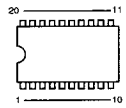


IX2451CE
SAA5249R



TDA7429

IX3007CE



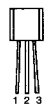
TDA8395
TDA9840

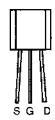
FX0024CE

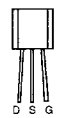
TDA4665

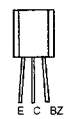
S24C04A1

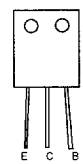
SIDE VIEW 侧视图

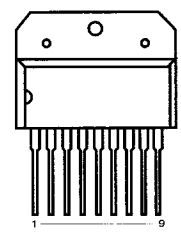












2SA1037
2SC2412

RC102M

2SA1015
2SC1815

KIA7045P

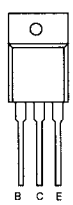
2SK30AG

2SK583

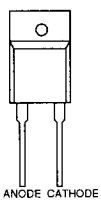
2SC1906

2SC3808

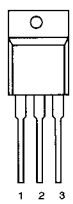
TDA6107



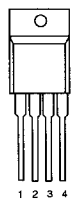
2SA1873
2SC4793



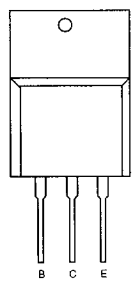
DX0355CE



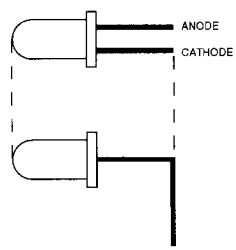
KIA7812P
KIA7805P
KIA7808P



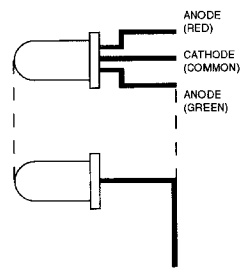
PQ12RD
PQ09RD
PQ05RD



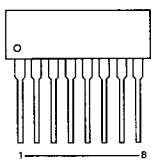
2SC3886



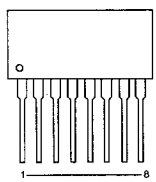
PX0274CE



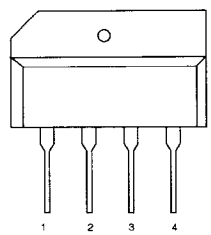
PX0003PE



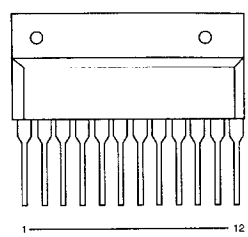
M51497L



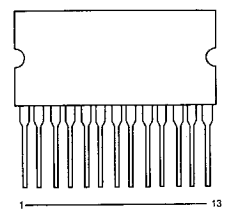
M5218AL



STR6656



AN5275



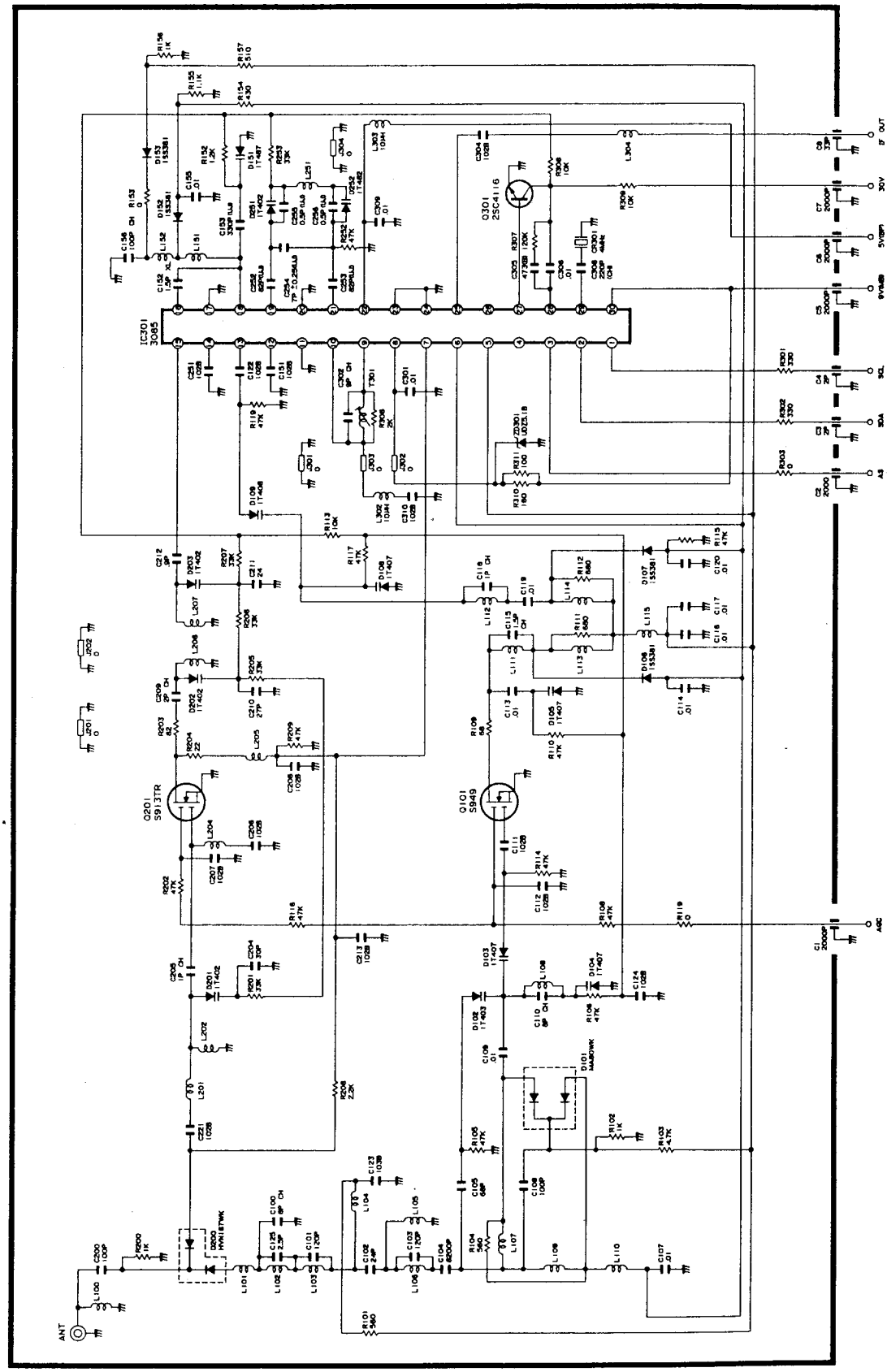
TDA8350

■ Tuner 调谐器

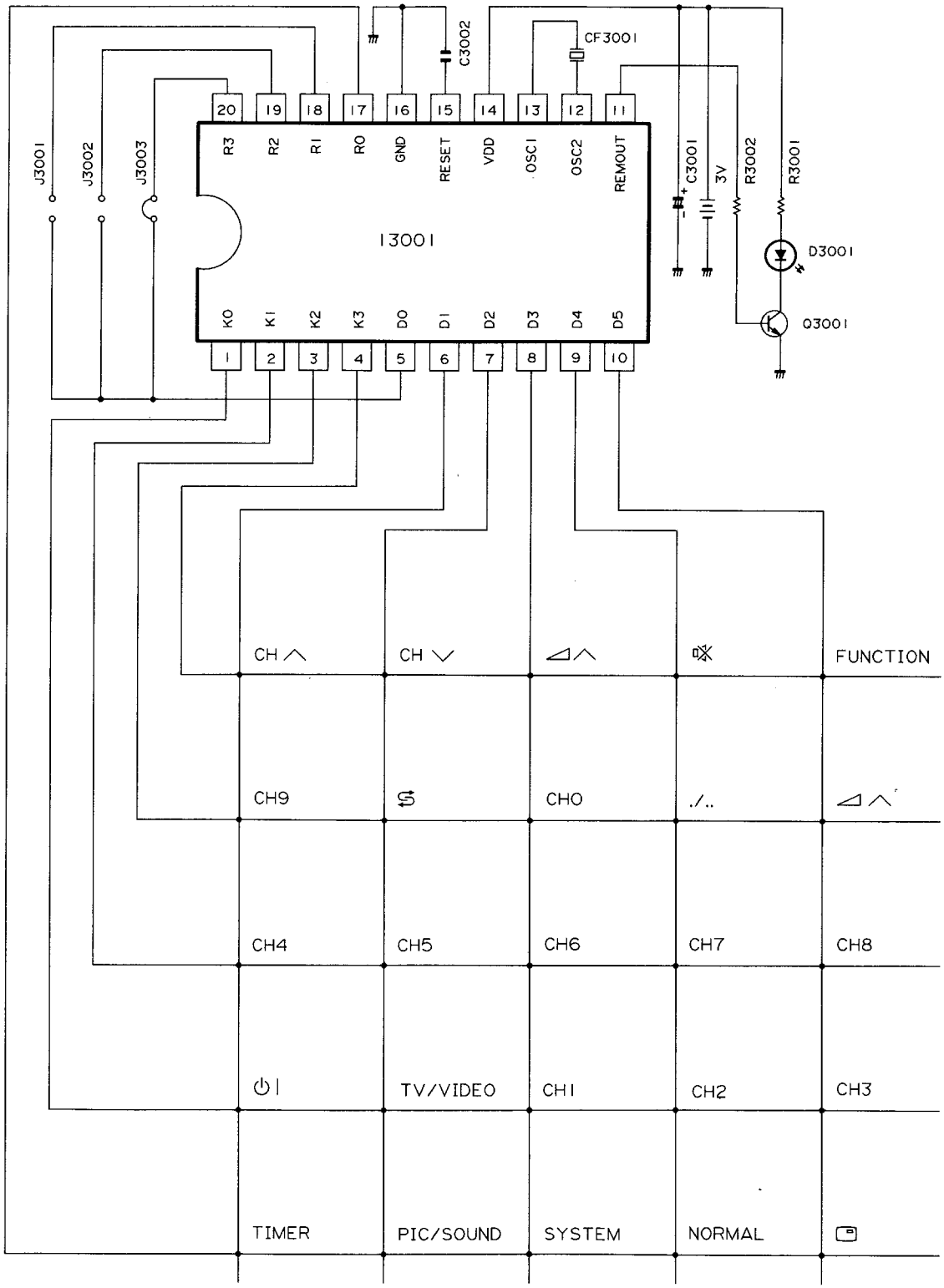
VTUVTST6HD64/

NOTE: The parts here shown are supplied as an assembly but not independently.

注意：在更换零件订货时，请以一套为最小单位，切勿以单件订货。



RRMCG1384PESA



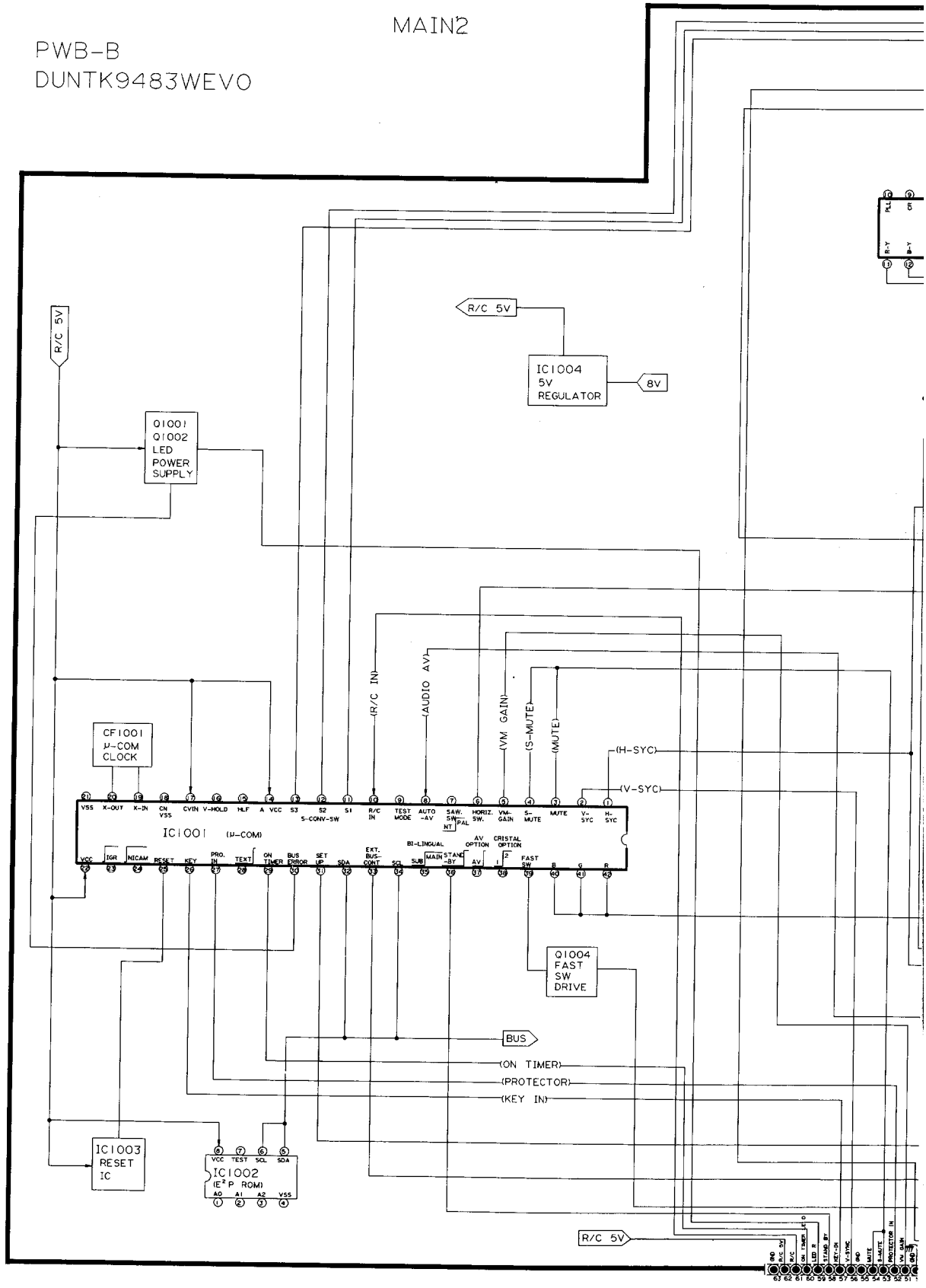
7	8	9	10	11	12

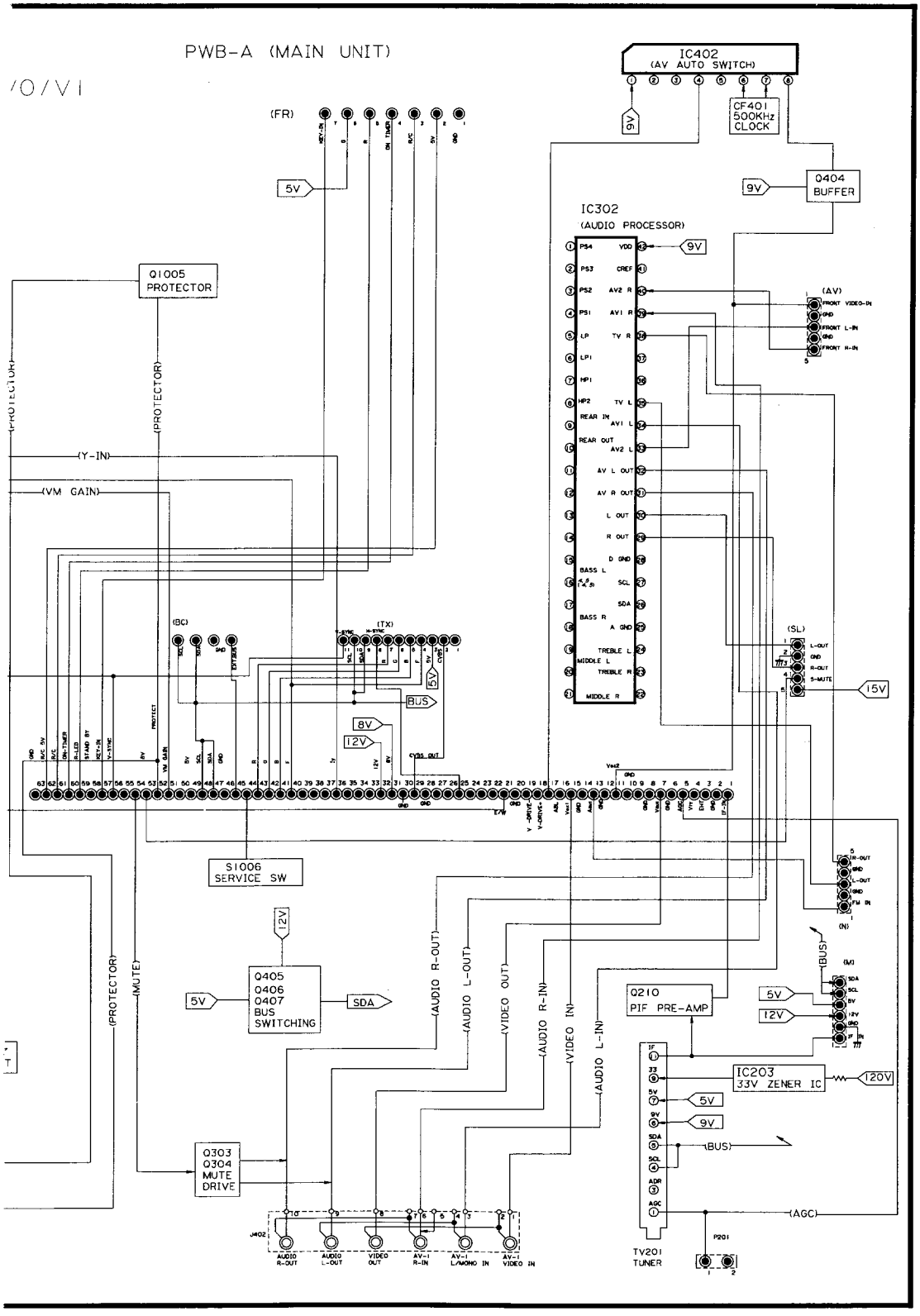
MODEL 29RN5/29RN5RU BLOCK DIAGRAM ■ Main 2 Unit

型号29RN5/29RN5RU电路方框图 ■ 主电路装置2

MAIN2

PWB-B
DUNTK9483WEVO

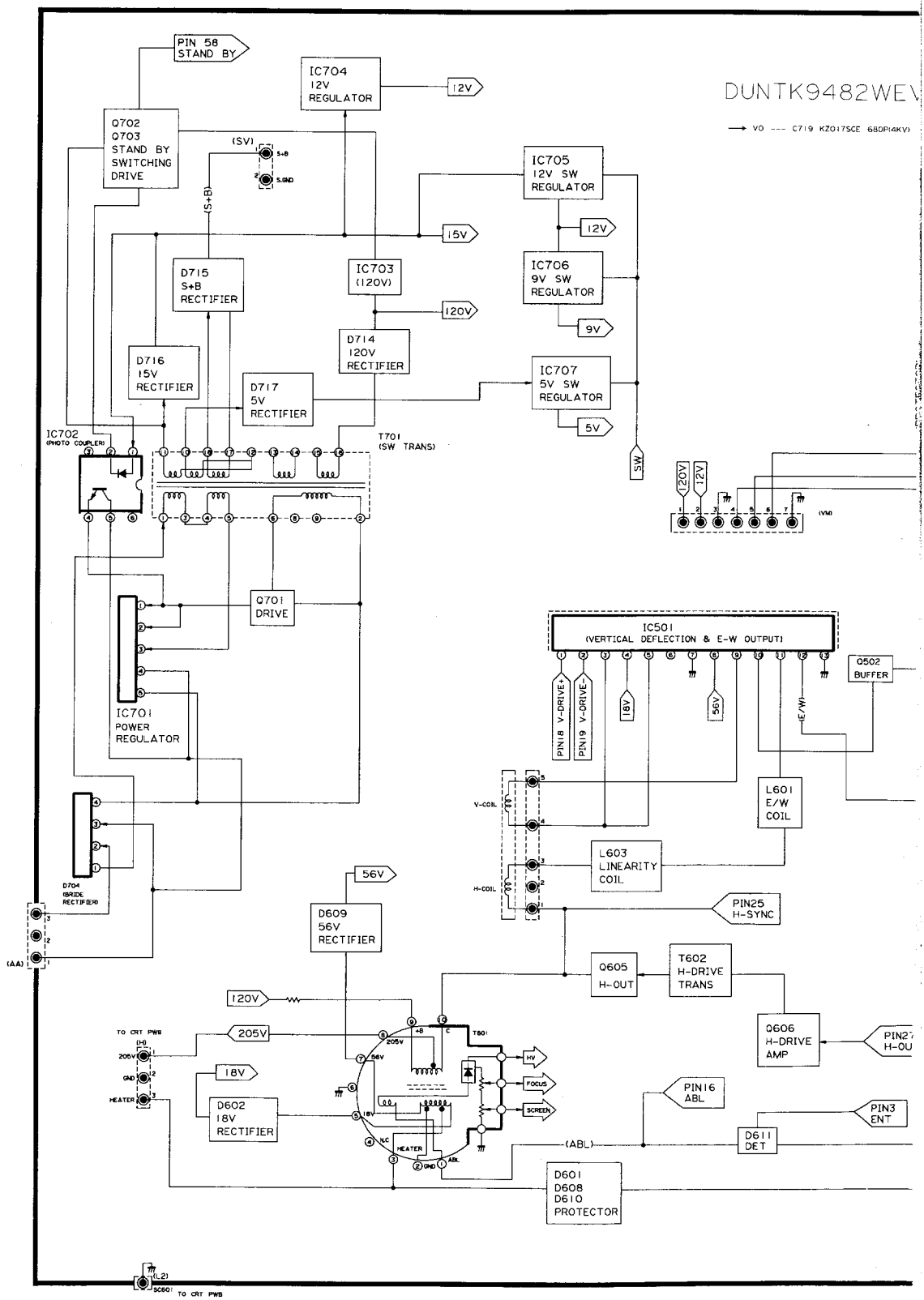


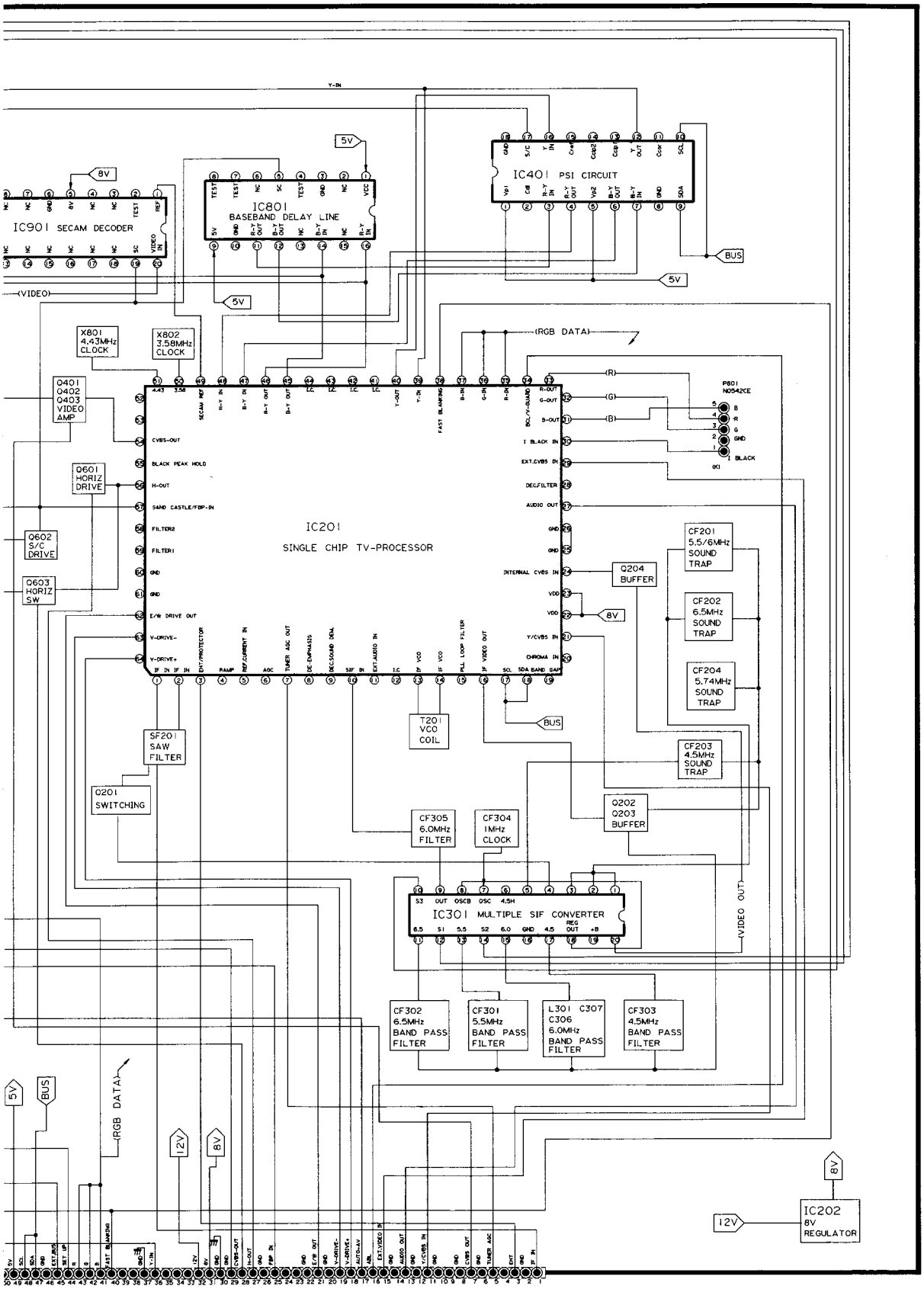

PWB-A (MAIN UNIT)
IC402
(AV AUTO SWITCH)
CF401
500KHz
CLOCK
9V
Q404
BUFFER
IC302
(AUDIO PROCESSOR)
Q1005
PROTECTOR
(FR)
5V
(PROTECTOR)
(Y-IN)
(VM GAIN)
(BC)
(TX)
(SL)
(AV)
BUS
8V
12V
15V
S1006
SERVICE SW
Q405
Q406
Q407
BUS
SWITCHING
SDA
(AUDIO R-OUT)
(AUDIO L-OUT)
(VIDEO OUT)
(AUDIO R-IN)
(VIDEO IN)
(AUDIO L-IN)
(MUTE)
Q303
Q304
MUTE
DRIVE
Q210
PIF PRE-AMP
IC203
33V ZENER IC
120V
TV201
TUNER
(AGC)
(BUS)

7	8	9	10	11	12

MODEL 29RN5/29RN5RU BLOCK DIAGRAM ■ Main 1 Unit

型号29RN5/29RN5RU电路方框图 ■ 主电路装置1




IC201
SINGLE CHIP TV-PROCESSOR
IC801
BASEBAND DELAY LINE
IC401 PSI CIRCUIT
IC901 SECAM DECODER
IC301 MULTIPLE SIF CONVERTER
IC202
8V
REGULATOR
X801
4.43MHz
CLOCK
X802
3.58MHz
CLOCK
Q401
Q402
Q403
VIDEO
AMP
Q601
HORIZ
DRIVE
Q602
S/C
DRIVE
Q603
HORIZ
SW
Q201
SWITCHING
Q204
BUFFER
Q202
Q203
BUFFER
SF201
SAW
FILTER
T201
VCO
COIL
CF201
5.5/6MHz
SOUND
TRAP
CF202
6.5MHz
SOUND
TRAP
CF204
5.74MHz
SOUND
TRAP
CF203
4.5MHz
SOUND
TRAP
CF305
6.0MHz
FILTER
CF304
1MHz
CLOCK
CF302
6.5MHz
BAND PASS
FILTER
CF301
5.5MHz
BAND PASS
FILTER
L301 C307
C306
6.0MHz
BAND PASS
FILTER
CF303
4.5MHz
BAND PASS
FILTER
P801
N0542CE
(RGB DATA)
(VIDEO)
(VIDEO OUT)
BUS
5V
8V
12V

7	8	9	10	11	12

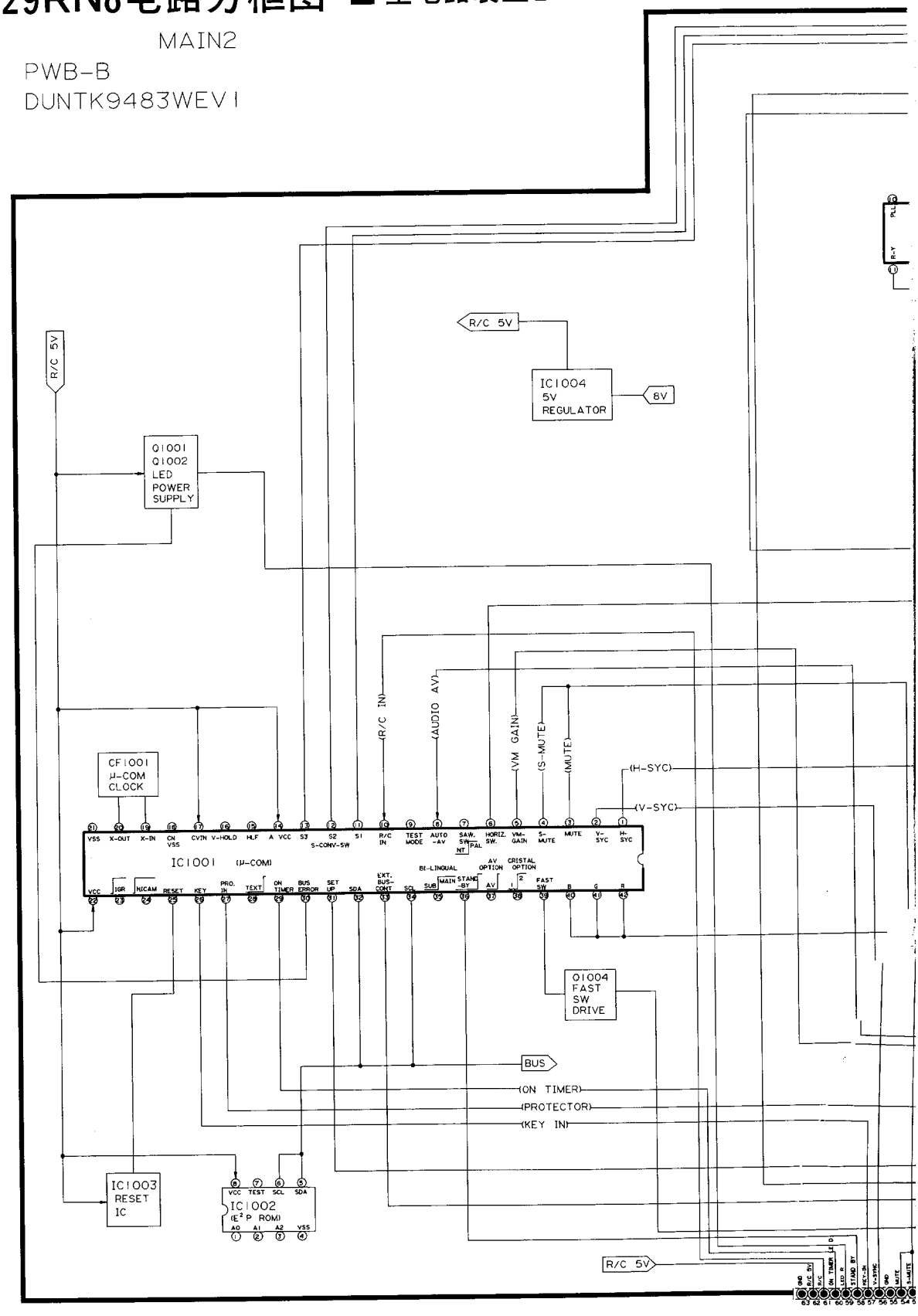
MODEL 29RN8 BLOCK DIAGRAM ■ Main 2 Unit

型号29RN8电路方框图 ■ 主电路装置2

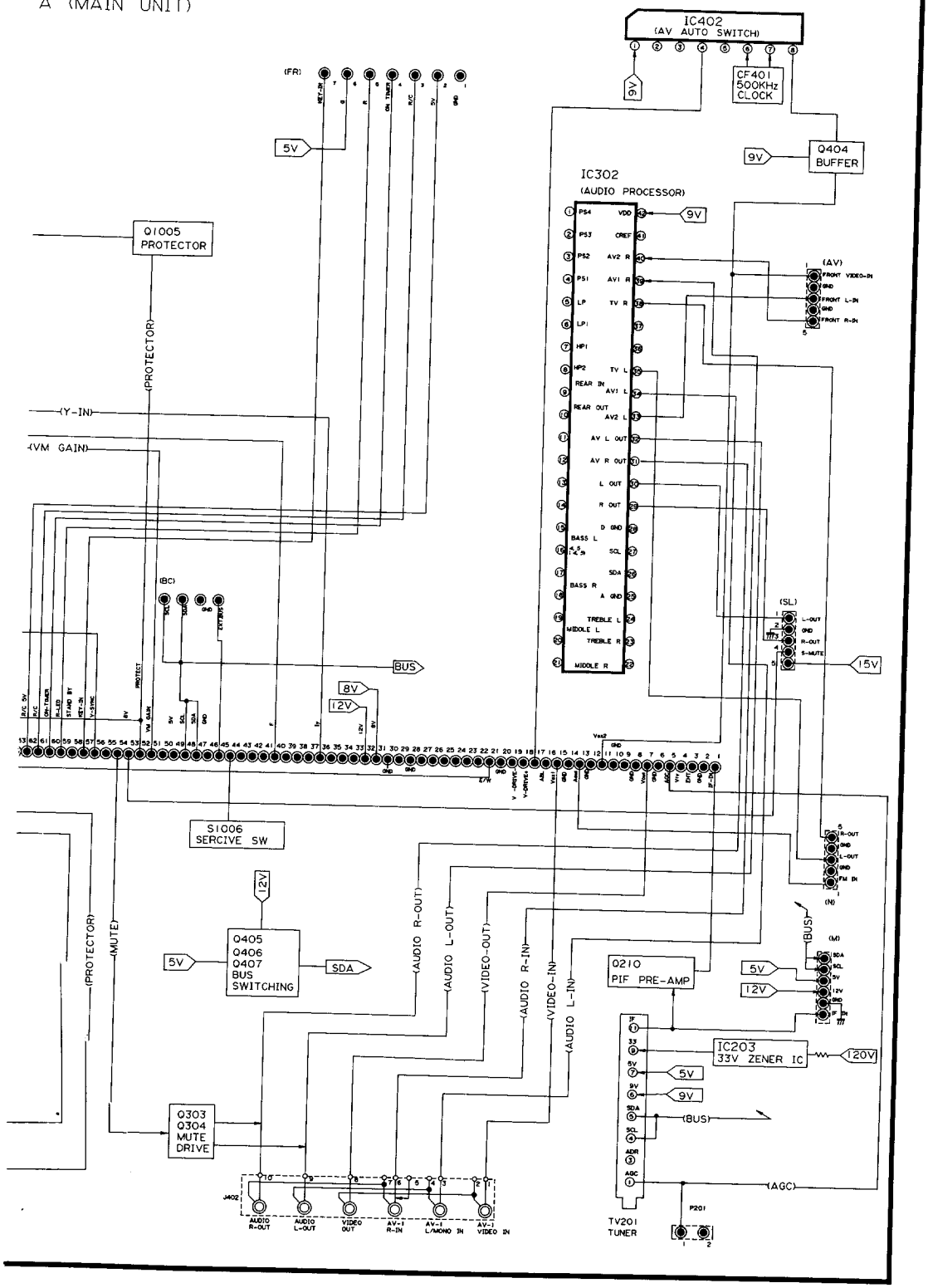
MAIN2

PWB-B

DUNTK9483WEV1



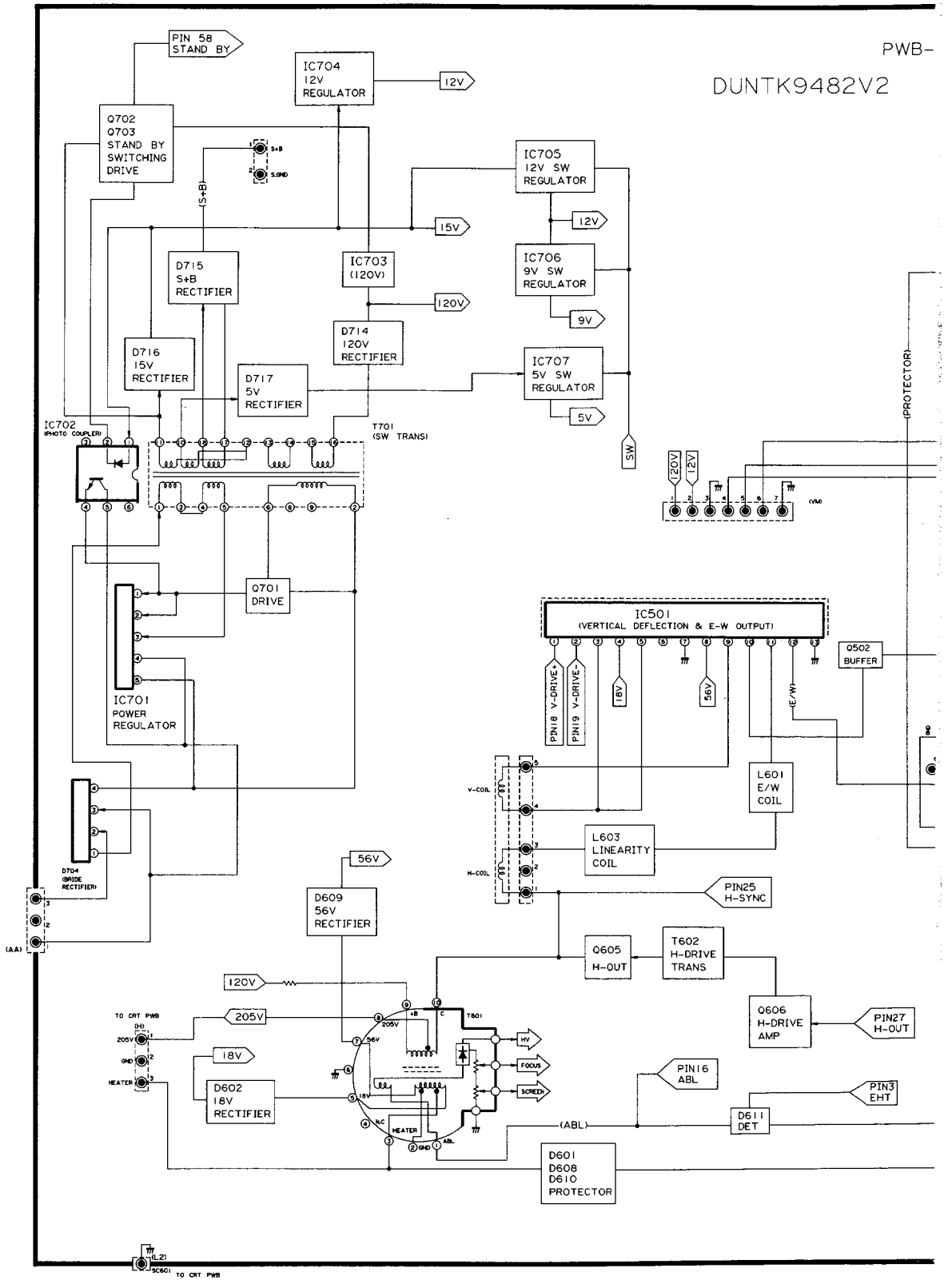
A (MAIN UNIT)

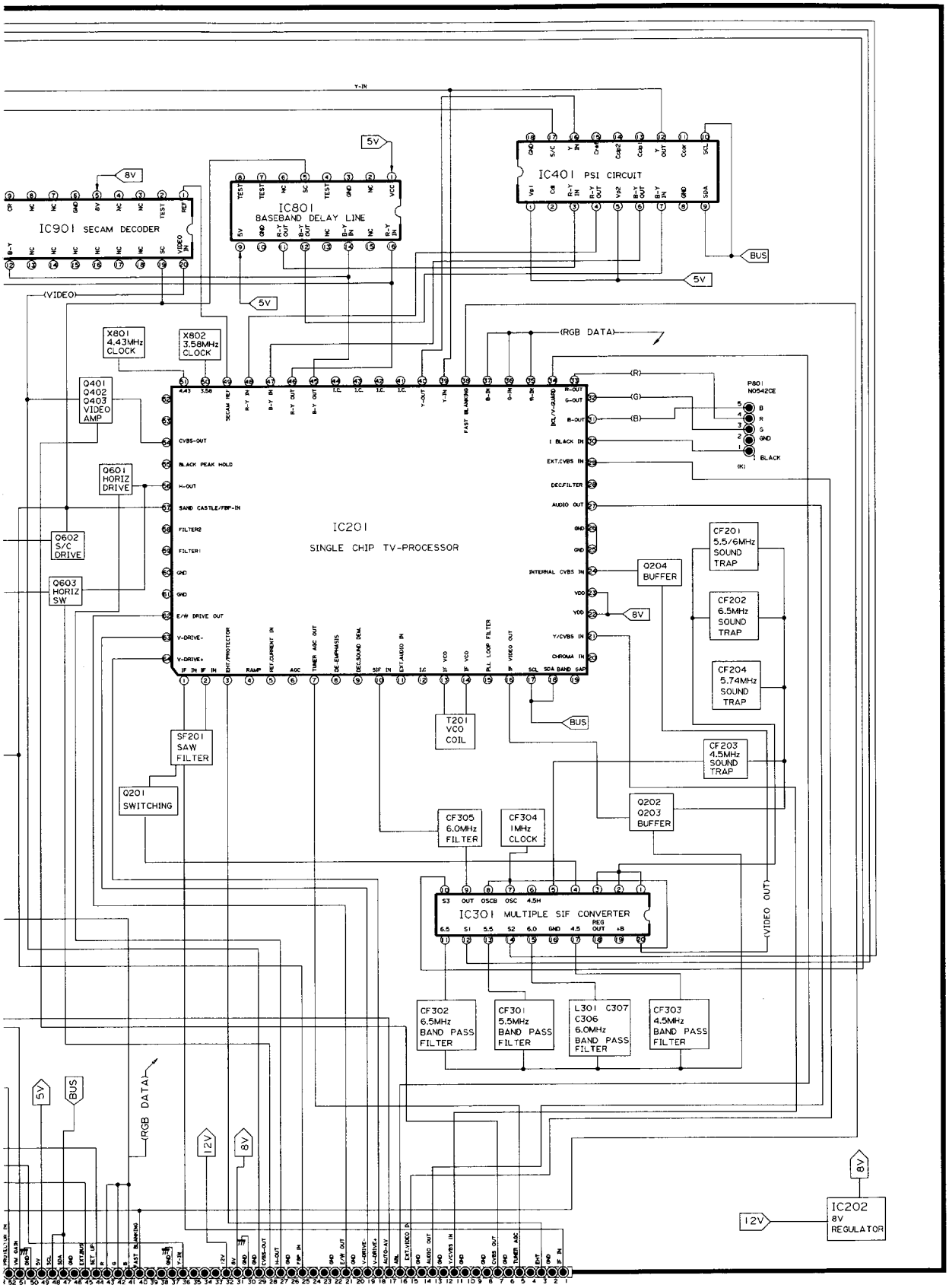


7	8	9	10	11	12

MODEL 29RN8 BLOCK DIAGRAM ■ Main 1 Unit

型号29RN8电路方框图 ■ 主电路装置1



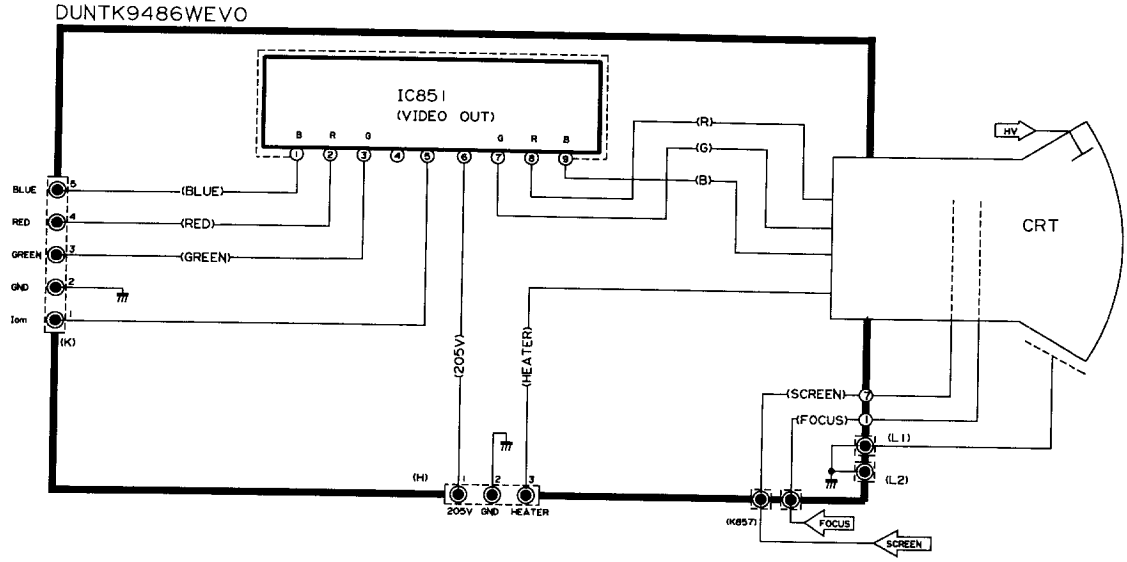

IC201
SINGLE CHIP TV-PROCESSOR
IC301 MULTIPLE SIF CONVERTER
IC401 PSI CIRCUIT
IC801
BASEBAND DELAY LINE
IC901 SECAM DECODER
IC202
8V
REGULATOR
X801
4.43MHz
CLOCK
X802
3.58MHz
CLOCK
Q401
Q402
Q403
VIDEO
AMP
Q601
HORIZ
DRIVE
Q602
S/C
DRIVE
Q603
HORIZ
SW
Q201
SWITCHING
Q204
BUFFER
Q202
Q203
BUFFER
SF201
SAW
FILTER
T201
VCO
COIL
CF201
5.5/6MHz
SOUND
TRAP
CF202
6.5MHz
SOUND
TRAP
CF203
4.5MHz
SOUND
TRAP
CF204
5.74MHz
SOUND
TRAP
CF305
6.0MHz
FILTER
CF304
1MHz
CLOCK
CF302
6.5MHz
BAND PASS
FILTER
CF301
5.5MHz
BAND PASS
FILTER
L301 C307
C306
6.0MHz
BAND PASS
FILTER
CF303
4.5MHz
BAND PASS
FILTER
P801
N0542CE
5V
8V
12V
BUS
(VIDEO)
(RGB DATA)
(R)
(G)
(B)
Y-IN
VIDEO OUT

	7	8	9	10	11	12

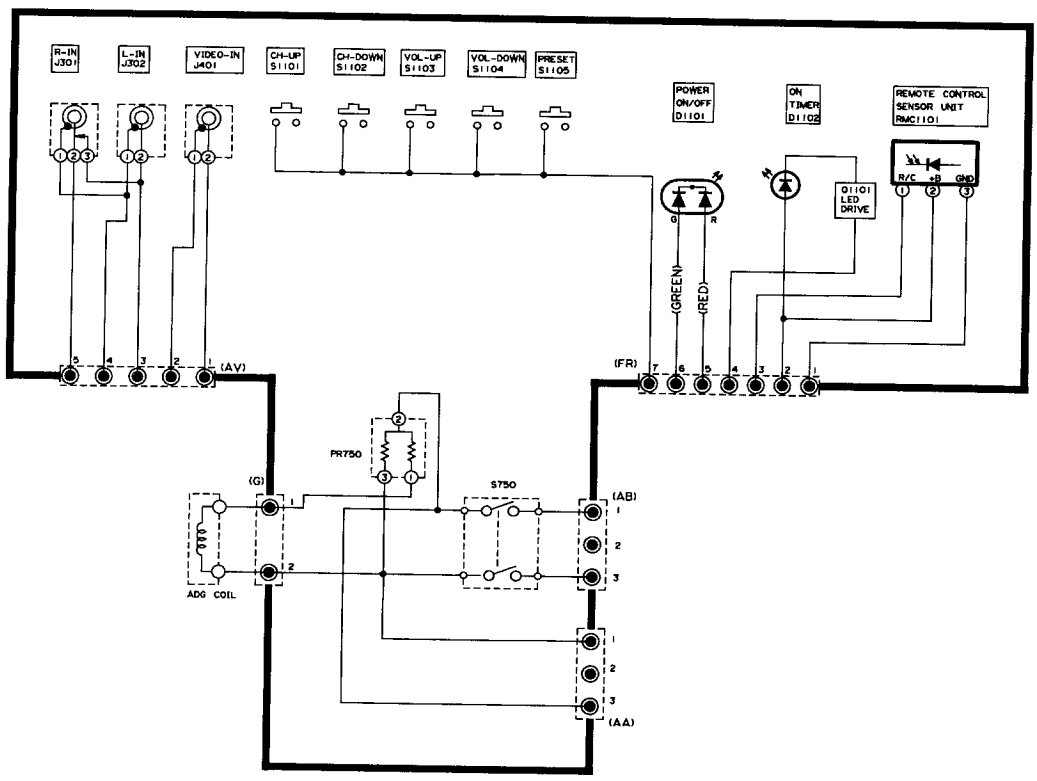
BLOCK DIAGRAM ■ CRT / Front / S-OUT Unit
电路方框图 ■ CRT/前面/扬声器输出电路装置

SUB

PWB-C (CRT UNIT)
DUNTK9486WEVO



PWB-D (FRONT UNIT)
DUNTK9480WEVO

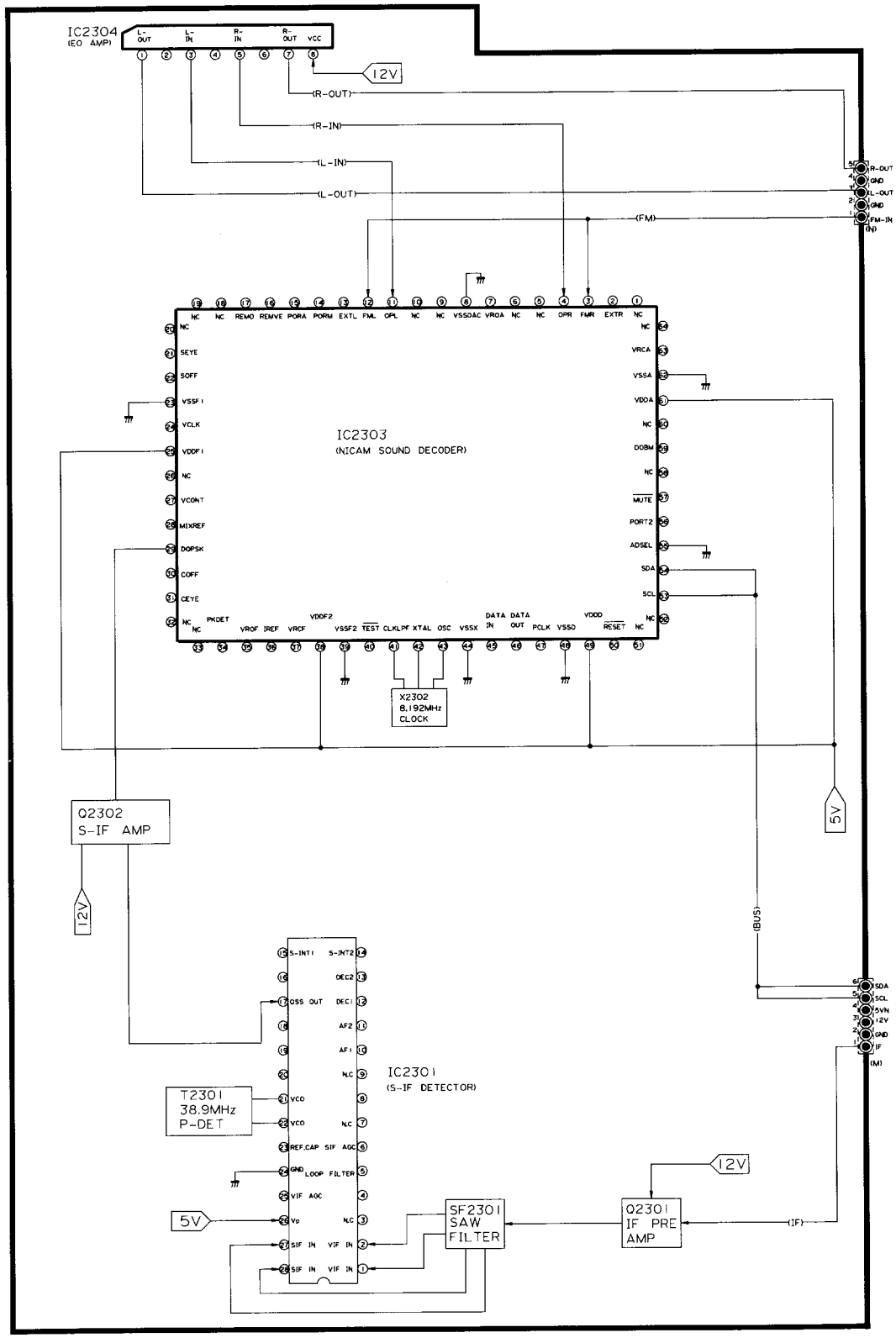


(MODEL 29RN8)

(型号29RN8)

RUNTK0009PEZZ MPX

PWB-F (MPX-UNIT)



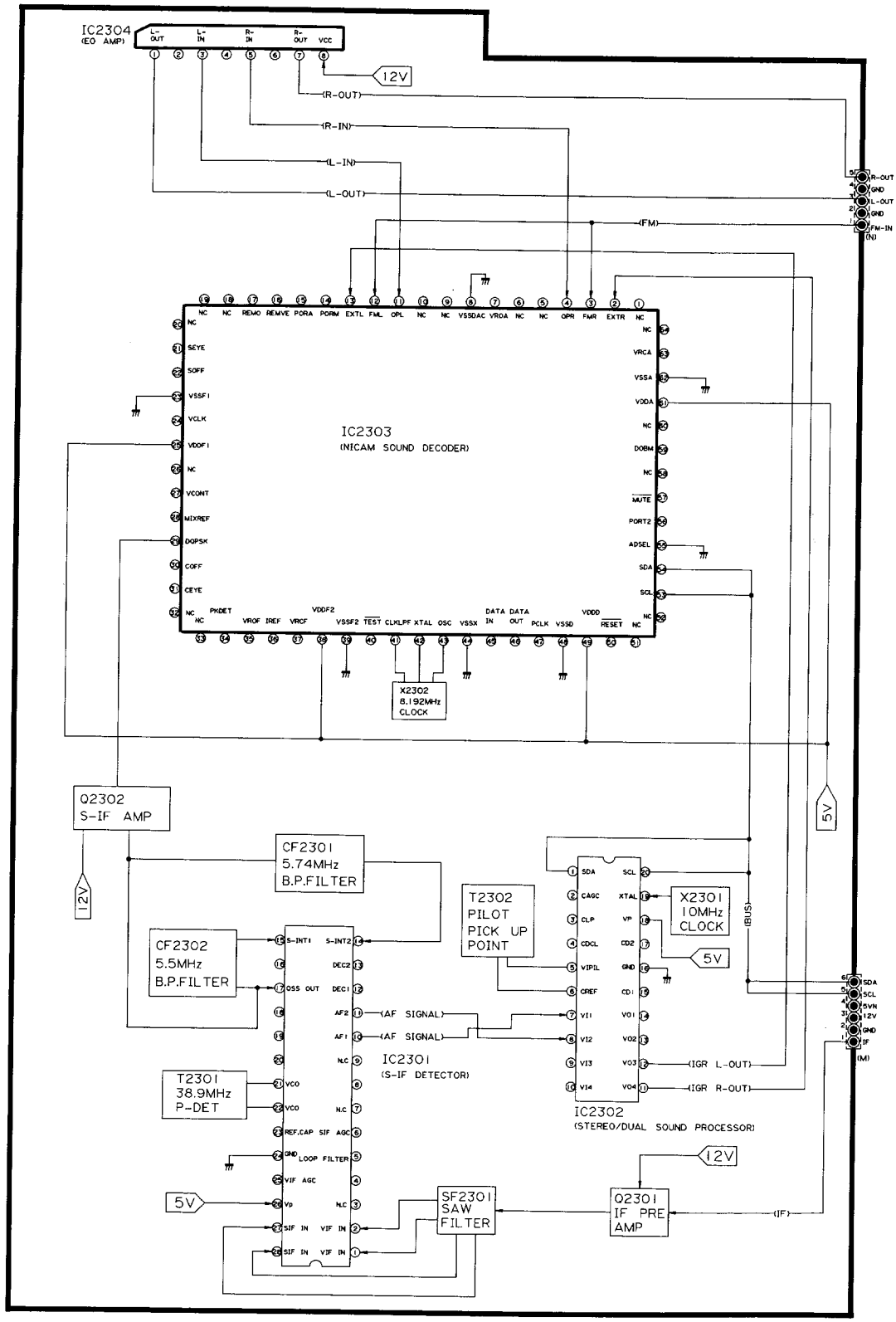
	7	8	9	10	11	12

BLOCK DIAGRAM ■ MPX Unit (MODEL 29RN5/29RN5RU)

电路方框图 ■ MPX电路装置 (型号29RN5/29RN5RU)

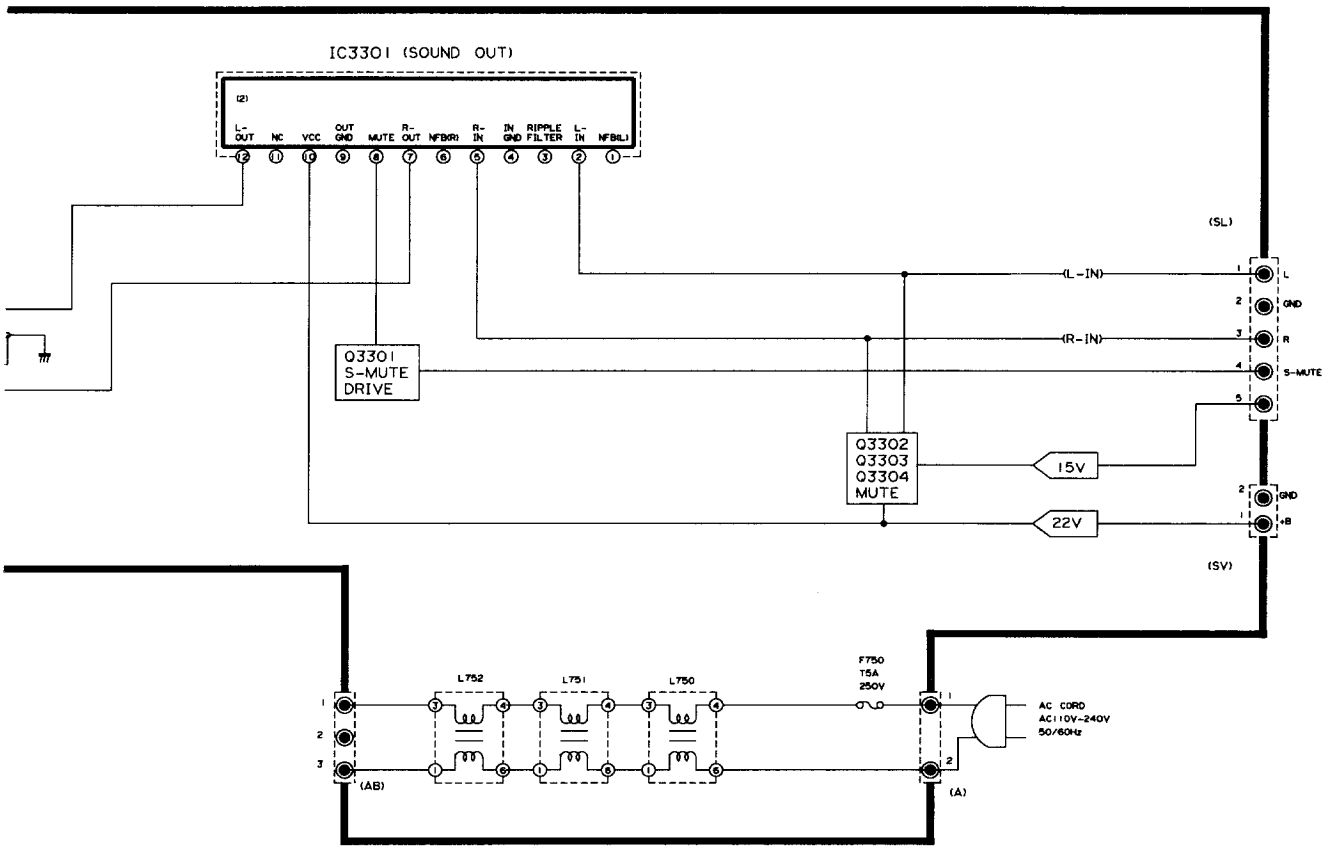
RUNTK0008PEZZ MPX

PWB-F (MPX-UNIT)



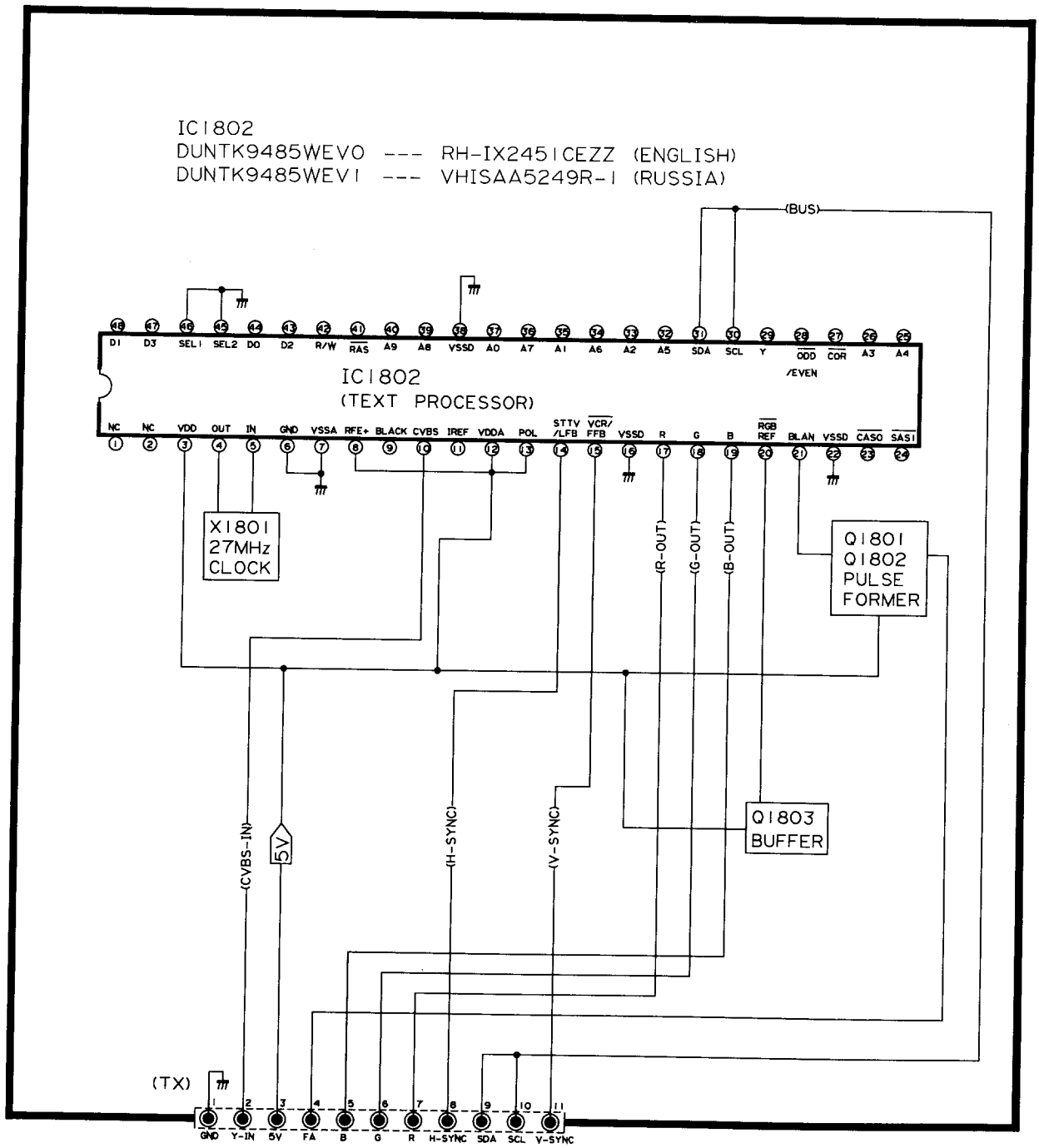
B-E (S-OUT UNIT)
NTK9481WEVO/V1

(VO --- 29RN5z/29RN5RU --- L750, L751, L752)
(V1 --- 29RN5c/29RN8 --- L750)



MODEL 29RN5/29RN5RU BLOCK DIAGRAM ■ TEXT Unit
型号29RN5/29RN5RU电路方框图 ■ TEXT电路装置

PWB-G (TEXT UNIT) TEXT
DUNTK9485WEV0 (29RN5)
DUNTK9485WEV1 (29RN5RU)



PWB-A DUNTK9482WEV0/V1/V2
MAIN 1 UNIT (Continued)

Ref. No.	Part No.	★	Description	Code
D311	RH-EX0628GEZZ	R	Zener Diode	AC
D312	RH-EX0628GEZZ	R	Zener Diode	AC
D313	RH-EX0628GEZZ	R	Zener Diode	AC
D401	RH-EX0628GEZZ	R	Zener Diode	AC
D402	RH-EX0628GEZZ	R	Zener Diode	AC
D403	RH-EX0628GEZZ	R	Zener Diode	AC
D503	RH-DX0475CEZZ	R	Diode	AB
D505	RH-EX0021GEZZ	J	Zener Diode (6.2V)	AD
D601	RH-EX0651GEZZ	R	Zener Diode	AB
D602	RH-DX0127CEZZ	R	Diode	AC
D603	RH-EX0628GEZZ	R	Zener Diode	AC
D604	RH-DX0475CEZZ	R	Diode	AB
D605	RH-DX0302CEZZ	R	Diode	AC
D606	RH-DX0229CEZZ	R	Diode	AF
D607	RH-DX0255CEZZ	R	Diode	AC
D608	RH-DX0475CEZZ	R	Diode	AB
D609	RH-DX0127CEZZ	R	Diode	AC
D610	RH-DX0279CEZZ	R	Diode	AB
D611	RH-DX0475CEZZ	R	Diode	AB
D616	RH-DX0475CEZZ	R	Diode	AB
D701	RH-DX0474CEZZ	R	Diode	AE
D702	RH-DX0475CEZZ	R	Diode	AB
D703	RH-EX0619GEZZ	R	Zener Diode	AA
D704	RH-DX0478CEZZ	R	Diode	AL
D708	RH-EX0641GEZZ	R	Zener Diode	AA
D709	RH-DX0471CEZZ	R	Diode	AE
D710	RH-DX0471CEZZ	R	Diode	AE
D711	RH-DX0471CEZZ	R	Diode	AE
D712	RH-EX0622GEZZ	R	Zener Diode	AA
D713	RH-DX0130CEZZ	R	Diode	AE
D714	RH-DX0229CEZZ	R	Diode	AF
D715	RH-DX0355CEZZ	R	Diode	AF
D716	VHDRL3Z////-1	R	RL3Z	AE
D717	VHDRL3Z////-1	R	RL3Z	AE
D718	RH-DX0475CEZZ	R	Diode	AB
D719	RH-DX0475CEZZ	R	Diode	AB
D720	RH-DX0475CEZZ	R	Diode	AB
D721	RH-DX0475CEZZ	R	Diode	AB
D1050	RH-DX0475CEZZ	R	Diode	AB
D1051	RH-DX0475CEZZ	R	Diode	AB
D1052	RH-EX0628GEZZ	R	Zener Diode	AC
⚠ IC702	RH-FX0024CEZZ	R	I.C.	AG

COILS

JA406	VP-XF180K0000	R	Peaking	18µH	AB
L202	VP-XF1R2K0000	R	Peaking	1.2µH	AB
L203	VP-XF150K0000	R	Peaking	15µH	AB
L204	VP-MK100K0000	R	Peaking	10µH	AB
L601	RCiLZ0012PEZZ	R	Coil		AL
L603	RCiLZ0822CEZZ	R	Coil		AL
L604	VP-CF390K0000	R	Peaking	39µH	AB
L701	RCiLP0226CEZZ	R	Coil		AD

FILTER

CF401	RFiLA0020CEZZ	R	Ceramic Filter	AD

TRANSFORMERS

⚠ T601	RTRNF0160PEZZ	R	H-Volt Transformer	BE
⚠ T602	RTRNZ0343CEZZ	R	Transformer	AG
⚠ T701	RTRNZ0128PEZZ	R	Transformer	AX

CAPACITORS

C220	VCEAGA1CW226M	R	22	16V	Electrolytic	AB
C221	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C222	VCEAGA1HW106M	R	10	50V	Electrolytic	AC
C223	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C224	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C225	VCEAGA1CW337M	R	330	16V	Electrolytic	AC
C227	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C228	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C229	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C230	VCQYTA1HM182J	R	1800p	50V	Mylar	AA
C231	VCKYD41HB102K	R	1000p	50V	Ceramic	AA
C320	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C321	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C322	VCQYTA1HM472J	R	4700p	50V	Mylar	AB
C323	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C324	VCQYTA1HM122J	R	1200p	50V	Mylar	AA
C325	VCQYTA1HM562J	R	5600p	50V	Mylar	AA
C326	VCFYFA1HA684J	R	0.68	50V	M.Polypro	AD
C327	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C328	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C329	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C330	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C331	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C332	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C333	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C334	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C335	VCQYTA1HM183J	R	0.018	50V	Mylar	AB
C336	VCQYTA1HM223J	R	0.022	50V	Mylar	AA
C337	VCQYTA1HM183J	R	0.018	50V	Mylar	AB
C338	VCQYTA1HM562J	R	5600p	50V	Mylar	AA
C339	VCQYTA1HM562J	R	5600p	50V	Mylar	AA
C340	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C341	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C342	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C343	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C344	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C345	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C346	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C347	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C348	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C349	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C350	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C351	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C352	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C353	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C354	VCEAGA1CW226M	R	22	16V	Electrolytic	AB
C355	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C356	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C417	VCEAGA1AW477M	R	470	10V	Electrolytic	AC
C418	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C419	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C420	VCKYPA1HB331K	R	330p	50V	Ceramic	AA
C421	VCKYPA1HB182K	R	1800p	50V	Ceramic	AA
C422	VCEAGA1HW224M	R	0.22	50V	Electrolytic	AA
C423	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C424	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C425	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C504	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C505	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C506	VCEAGA1EW108M	R	1000	25V	Electrolytic	AD
C508	VCEAGA1HW106M	R	10	50V	Electrolytic	AC
C509	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C510	VCKYPA1HB152K	R	1500p	50V	Ceramic	AA
C511	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C512	VCQYSG2AA473K	R	0.047	100V	Mylar	AC
C513	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C514	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C515	VCQYTA1HM103J	R	0.01	50V	Mylar	AA
C516	VCFYAA2AA103J	R	0.01	100V	M.Polypro	AF
C610	VCFPPD2DB394J	R	0.39	200V	M.Polypro	AE
C611	VCQPSC2JA393K	R	0.039	630V	Mylar	AB
C612	VCKYPH3DB561K	R	560p	2kV	Ceramic	AC
C613	VCFPPD3CA103H	R	0.01	1.6kV	M.Polypro	AE
C614	VCFPPD3CA113H	R	0.011	1.6kV	M.Polypro	AE

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. **MODEL NUMBER**
2. **REF. NO.**
3. **PART NO.**
4. **DESCRIPTION**

更换零件表

更换零件

本维修说明书对具有特别安全要求的零件均用标记加以识别。在此更换零件表中，具有特别安全要求的电路元件均用⚠标记以便注意识别。更换零件时，为了用户的安全以及电视机原有的工作性能，务请使用夏普规定零件。否则，可能有导致触电、火灾或其他不测事故发生的可能。

更换零件的订货方法

为了能迅速而确实地接受订货、以及正确无误地按时交货，在订货时请将下列各项明确告知。

1. 型号
2. 参考编号
3. 零件编号
4. 零件名称

MARK ★ : SPARE PARTS-DELIVERY SECTION.

附★记号为备用部件的交货部门

Ref. No.	Part No.	★	Description	Code

PICTURE TUBE

⚠ V1	VB68QBC220X1E	R	Picture Tube (29RN5c/29RN5z)	CV
⚠ V1	VB68QBC220X*S	R	Picture Tube (29RN5RU/29RN8)	CR
⚠	RCiLG0051PEZZ	R	ADG Coil	AT
⚠	RCiLH1858CEN1	R	Deflection Yoke	BK
	PMAGF3038CEZZ	R	Purity Magnet	AL
	PMAGG3002CEZZ	R	Magnet	AC
	PSPAG0003PEZZ	R	Wedge(Gum), x3	AD
	QEARC2901PEZZ	R	Grounding Strap	AK
	LHLDW0003PEKZ	R	ADG Coil Holder, x4	AB

PRINTED WIRING BOARD ASSEMBLY (NOT REPLACEMENT ITEM)

PWB-A	DUNTK9482WEV0	-	Main 1 Unit (29RN5c)	—
PWB-A	DUNTK9482WEV1	-	Main 1 Unit (29RN5RU/29RN5z)	—
PWB-A	DUNTK9482WEV2	-	Main 1 Unit (29RN8)	—
PWB-B	DUNTK9483FMV0	-	Main 2 Unit (29RN5/29RN5RU)	—
PWB-B	DUNTK9483FMV1	-	Main 2 Unit (29RN8)	—
PWB-C	DUNTK9486WEV0	-	CRT Unit	—
PWB-D	DUNTK9480FMV0	-	Front Unit	—
PWB-E	DUNTK9481FMV1	-	S-OUT Unit (29RN5c/29RN8)	—
PWB-E	DUNTK9481FMV0	-	S-OUT Unit (29RN5RU/29RN5z)	—
PWB-F	RUNTK0008PEZZ	-	MPX Unit (29RN5/29RN5RU)	—
PWB-F	RUNTK0009PEZZ	-	MPX Unit(29RN8)	—
PWB-G	DUNTK9485FMV0	-	TEXT Unit (29RN5c/29RN5z)	—
PWB-G	DUNTK9485FMV1	-	TEXT Unit (29RN5RU)	—
PWB-H	DUNTK9547WEV0	-	VM Unit	—

Ref. No.	Part No.	★	Description	Code

PWB-A DUNTK9482WEV0/V1/V2 MAIN 1 UNIT

TUNER AND ASSEMBLY

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT INDEPENDENTLY.

⚠ TU201	VTUVTST6HD64/	R	Tuner	BF

INTEGRATED CIRCUITS

IC203	RH-iX0249CEZZ	R	I.C.	AE
IC302	VHiTDA7429S-1	R	I.C.	AG
IC402	VHiM51497L/-1	R	M51497L	AL
IC501	VHiTDA8350Q-1	R	TDA8350Q	AN
IC701	VHiSTR6656/-1	R	I.C.	AZ
IC703	VHiSE120N//-1	R	SE120N	AG
IC704	VHiKA7812Pi-1	R	KIA7812PI	AE
IC705	VHiPQ12RD11-1	R	PQ12RD11	AG
IC706	VHiPQ09RD11-1	R	PQ09RD11	AG
IC707	VHiPQ05RD11-1	R	PQ05RD11	AG

TRANSISTORS

Q210	VS2SC1906//1E	R	2SC1906	AC
Q303	VS2SC1815GW-1	R	2SC1815GW	AB
Q304	VS2SC1815GW-1	R	2SC1815GW	AB
Q404	VS2SA1015Y/1E	R	2SA1015Y	AC
Q405	VS2SC1815GW-1	R	2SC1815GW	AB
Q406	VS2SC1815GW-1	R	2SC1815GW	AB
Q407	VS2SK583///-1	R	2SK583	AE
Q502	VS2SA1015Y/1E	R	2SA1015Y	AC
⚠ Q605	VS2SC3886A/1E	R	2SC3886A	AP
Q606	VS2SC3808//-1	R	2SC3808	AH
Q701	VS2SA1015Y/1E	R	2SA1015Y	AC
Q702	VS2SC1815GW-1	R	2SC1815GW	AB
Q703	VS2SC1815GW-1	R	2SC1815GW	AB
Q1005	VS2SA1015Y/1E	R	2SA1015Y	AC

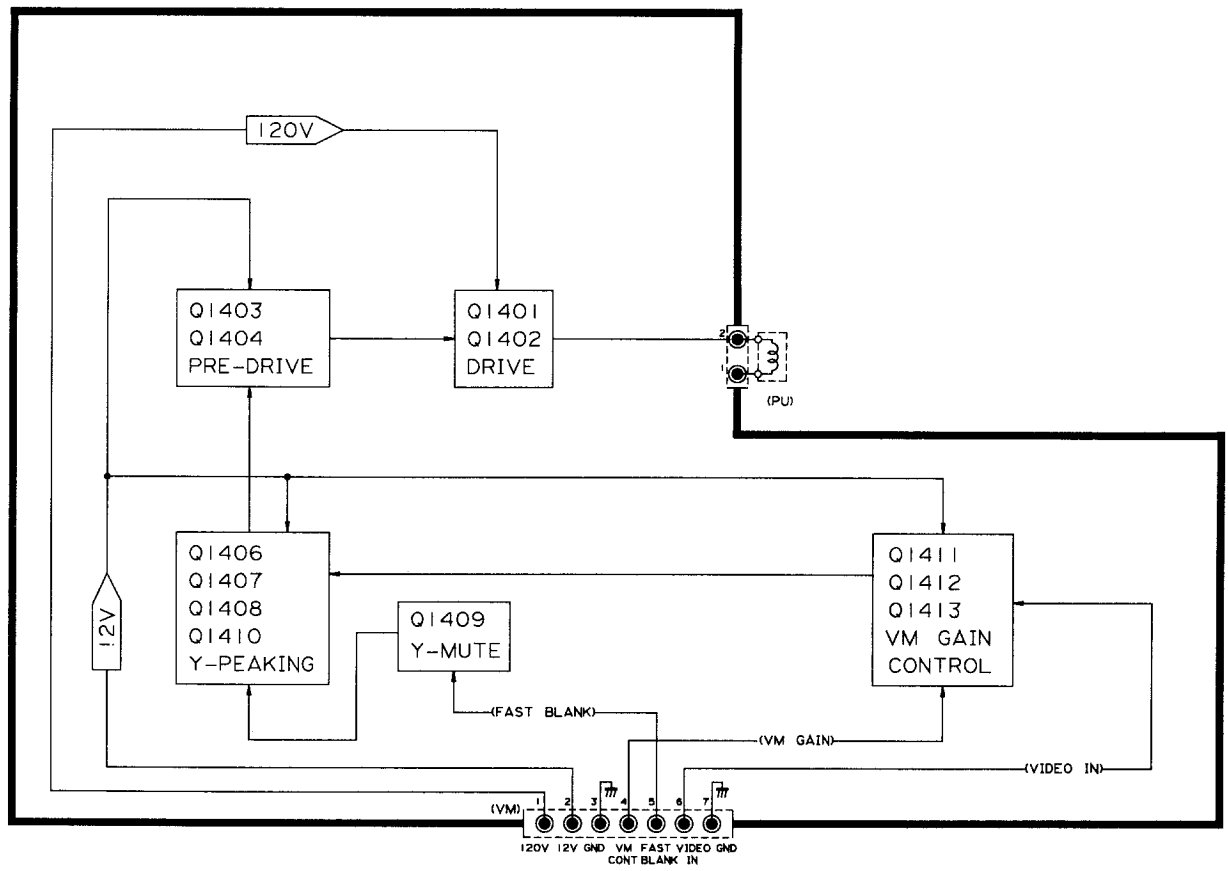
DIODES

D202	RH-EX0619GEZZ	R	Zener Diode	AA
D203	RH-EX0619GEZZ	R	Zener Diode	AA
D310	RH-EX0628GEZZ	R	Zener Diode	AC

BLOCK DIAGRAM ■ VM Unit

电路方框图 ■ VM电路装置

PWB-H (VM UNIT)
DUNTK9547WEVO



PWB-A DUNTK9482WEV0/V1/V2 MAIN 1 UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
C615	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C616	VCKYPA1HB472K	R	4700p	50V	Ceramic	AA
C617	VCFPPD2DB474J	R	0.47	200V	M.Polypro	AE
C618	VCFYSB2EB224K	R	0.22	250V	M.Polypro	AD
C619	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C620	VCEAGA2AW106M	R	10	100V	Electrolytic	AC
C621	VCEAGA1HW106M	R	10	50V	Electrolytic	AC
C622	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C623	VCEAGA1EW227M	R	220	25V	Electrolytic	AC
C624	VCQYTA1HM273J	R	0.027	50V	Mylar	AB
C625	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C626	VCEAGH1EW228M	R	2200	25V	Electrolytic	AE
C627	RC-KZ0039CEZZ	R	680p	2kV	Ceramic	AB
C628	VCFPPD3CA472J	R	4700p	1.6kV	M.Polypro	AD
C629	VCFYAC2AA475J	R	4.7	100V	M.Polypro	AL
C630	VCEAGA1HW335M	R	3.3	50V	Electrolytic	AB
C631	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C632	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C633	VCEAGA2EW336M	R	33	250V	Electrolytic	AD
C634	VCKYPA2HB561K	R	560p	500V	Ceramic	AA
C635	VCFPPD2DB394J	R	0.39	200V	M.Polypro	AE
C636	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C703	VCQPSC2JA333K	R	0.033	630V	Mylar	AB
C704	RC-KZ0035CEZZ	R	Capacitor			AB
C705	VCKYPA1HB222K	R	2200p	50V	Ceramic	AA
C706	VCKYPH3DB561K	R	560	2KV	CERAMIC	AC
C707	VCKYPA1HB471K	R	470p	50V	Ceramic	AA
C708	VCEAGA1VW107M	R	100	35V	Electrolytic	AC
C709	RC-KZ0035CEZZ	R	220p	2kV	Ceramic	AB
C710	RC-KZ0016CEZZ	R	0.1	1.5kV	Ceramic	AC
C711	RC-KZ0016CEZZ	R	0.1	1.5kV	Ceramic	AC
C712	RC-KZ0016CEZZ	R	0.1	1.5kV	Ceramic	AC
C713	RC-KZ0016CEZZ	R	0.1	1.5kV	Ceramic	AC
C714	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C715	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C716	VCEAGA1CW477M	R	470	16V	Electrolytic	AC
C717	VCEAGA1CW477M	R	470	16V	Electrolytic	AC
C718	VCEAGA1CW477M	R	470	16V	Electrolytic	AC
⚠ C719	RC-KZ017SCEZZ	R	Capacitor (29RN5c)			AD
⚠ C719	RC-KZ021SCEZZ	R	Capacitor (29RN5RU/29RN5z,29RN8)			AE
C720	VCEAGA1CW477M	R	470	16V	Electrolytic	AC
C721	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C722	RC-KZ0024CEZZ	R	1000p	2kV	Ceramic	AC
C723	RC-KZ0037CEZZ	R	390p	2kV	Ceramic	AB
C724	VCEAGA1EW108M	R	1000	25V	Electrolytic	AD
C725	VCEAGH1HW228M	R	2200	50V	Electrolytic	AG
C726	VCEAGA1CW227M	R	220	16V	Electrolytic	AC
C727	RC-EZ0400CEZZ	R	270	200V	Electrolytic	AM
C728	VCEAGW2CW227MR		220	160V	Electrolytic	AK
C730	RC-EZ0695CEZZ	R	330	450V	Electrolytic	AW
C731	RC-EZ0695CEZZ	R	330	450V	Electrolytic	AW
C733	VCKYD41HB102K	R	1000p	50V	Ceramic	AA
C734	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C735	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C738	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C739	VCKYPA2HB222K	R	2200p	500V	Ceramic	AA
C1001	VCEAGA1AW227M	R	220	10V	Electrolytic	AB
C1002	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C1426	VCQYTA1HM223J	R	0.022	50V	Mylar	AA

RESISTORS

R15	VRD-RA2BE270J	R	27	1/8W	Carbon	AA
R221	VRD-RA2BE151J	R	150	1/8W	Carbon	AA
R222	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R224	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R226	VRD-RA2BE122J	R	1.2k	1/8W	Carbon	AA
R227	VRS-VV3DB153J	R	15k	2W	Metal Oxide	AA
R228	VRD-RA2BE273J	R	27k	1/8W	Carbon	AA
R229	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R230	VRD-RA2BE181J	R	180	1/8W	Carbon	AA
R320	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R321	VRD-RA2BE682J	R	6.8k	1/8W	Carbon	AA
R322	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R323	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R324	VRD-RA2BE272J	R	2.7k	1/8W	Carbon	AA
R325	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R326	VRD-RA2BE564J	R	560k	1/8W	Carbon	AA
R327	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R328	VRD-RA2BE564J	R	560k	1/8W	Carbon	AA
R329	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R330	VRD-RA2BE272J	R	2.7k	1/8W	Carbon	AA
R331	VRD-RA2BE564J	R	560k	1/8W	Carbon	AA
R332	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R333	VRD-RA2BE331J	R	330	1/8W	Carbon	AA
R334	VRD-RA2BE331J	R	330	1/8W	Carbon	AA
R335	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R336	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R337	VRD-RA2BE331J	R	330	1/8W	Carbon	AA
R338	VRD-RA2BE331J	R	330	1/8W	Carbon	AA
R339	VRD-RA2BE473J	R	47k	1/8W	Carbon	AA
R340	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R341	VRD-RA2BE473J	R	47k	1/8W	Carbon	AA
R342	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R343	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R344	VRD-RA2BE564J	R	560k	1/8W	Carbon	AA
R345	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R347	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R348	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R421	VRD-RA2EE680J	R	68	1/4W	Carbon	AA
R422	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R427	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R428	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R429	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R430	VRD-RA2BE184J	R	180k	1/8W	Carbon	AA
R431	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R432	VRD-RA2BE271J	R	270	1/8W	Carbon	AA
R433	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R435	VRD-RA2BE684J	R	680k	1/8W	Carbon	AA
R440	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R441	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R442	VRD-RA2BE392J	R	3.9k	1/8W	Carbon	AA
R443	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R444	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R445	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R446	VRD-RA2BE333J	R	33k	1/8W	Carbon	AA
R447	VRD-RA2EE750J	R	75	1/4W	Carbon	AA
R448	VRD-RA2EE750J	R	75	1/4W	Carbon	AA
R503	VRD-RA2BE332J	R	3.3k	1/8W	Carbon	AA
R504	VRN-VV3AB2R2J	R	2.2	1W	Metal Film	AA
R505	VRN-VV3AB1R2J	R	1.2	1W	Metal Film	AA
R506	VRD-RA2BE823J	R	82k	1/8W	Carbon	AA
R507	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R508	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R509	VRS-VV3DB151J	R	150	2W	Metal Oxide	AA
R510	VRD-RA2BE180J	R	18	1/8W	Carbon	AA
⚠ R512	RR-XZ0020CEZZ	R	39	1/4W	Fuse Resistor	AB
R612	VRD-RA2BE275J	R	2.7M	1/8W	Carbon	AA
R613	VRS-VV3DB561J	R	560	2W	Metal Oxide	AA
R614	VRW-KQ41C3R3K	R	3.3	15W	Cement	AG
R615	VRD-RA2BE563J	R	56k	1/8W	Carbon	AA
R616	VRN-RV3DB1R0J	R	1	2W	Metal Film	AB
R617	VRD-RA2EE101J	R	100	1/4W	Carbon	AA
R618	VRD-RA2EE101J	R	100	1/4W	Carbon	AA
R619	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
⚠ R620	RR-XZ0016CEZZ	R	1	1/2W	Fuse Resistor	AB

PWB-A DUNTK9482WEV0/V1/V2
MAIN 1 UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
R621	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R622	VRS-SU2HB102J	R	1k	1/2W	Metal Oxide	AA
R623	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R624	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R625	VRD-RA2EE125J	R	1.2M	1/4W	Carbon	AA
R626	VRD-RA2BE274J	R	270k	1/8W	Carbon	AA
R627	VRD-RA2BE473J	R	47k	1/8W	Carbon	AA
R628	VRD-RA2BE334J	R	330k	1/8W	Carbon	AA
R629	VRS-VV3AB472J	R	4.7k	1W	Metal Oxide	AA
R630	VRD-RA2EE102J	R	1k	1/4W	Carbon	AA
R632	VRD-RM2HD820J	R	82	1/2W	Carbon	AA
R633	VRD-RM2HD470J	R	47	1/2W	Carbon	AA
⚠ R636	RR-XZ0029CEZZ	R	3.3	1/2W	Fuse Resistor	AB
R637	VRW-KX3HC180J	R	18	5W	Cement	AE
⚠ R638	RR-XZ0071CEZZ	R	1	1W	Fuse Resistor	AC
R643	VRS-KT3LB120J	R	12	3W	Metal Oxide	AC
R644	VRD-RA2BE391J	R	390	1/8W	Carbon	AA
R701	VRS-KT3LB103J	R	10k	3W	Metal Oxide	AF
R702	VRN-SV2HBR27J	R	0.27	1/2W	Metal Film	AB
R703	VRD-RM2HD684J	R	680k	1/2W	Carbon	AA
R704	VRD-RA2BE333J	R	33k	1/8W	Carbon	AA
R705	VRN-SV2HBR27J	R	0.27	1/2W	Metal Film	AB
R706	VRN-SV2HBR27J	R	0.27	1/2W	Metal Film	AB
R707	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R708	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R709	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R710	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R712	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R713	VRN-KT3LB4R7J	R	4.7	3W	Metal Film	AG
R714	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R715	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R716	VRC-UA2HG825K	R	8.2M	1/2W	Solid	AA
R717	VRC-UA2HG825K	R	8.2M	1/2W	Solid	AA
R718	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R719	VRD-RA2BE332J	R	3.3k	1/8W	Carbon	AA
R720	VRN-VV3DB6R8J	R	6.8	2W	Metal Film	AB
R721	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R722	VRS-SV3AB683J	R	68k	1W	Metal Oxide	AA
R723	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R724	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R725	VRN-KT3LB2R2J	R	2.2	3W	Metal Film	AF
R726	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R732	VRN-KT3LB6R8J	R	6.8	3W	Metal Film	AG
R1001	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R1002	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1003	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R1004	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1005	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1020	VRD-RM2HD330J	R	33	1/2W	Carbon	AA
R1021	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1022	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1445	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1446	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1448	VRD-RA2BE154J	R	150k	1/8W	Carbon	AA

SWITCH

S1006	QSW-B0015CEZZ	R	Switch	AC

MISCELLANEOUS PARTS

FB601	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB602	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB701	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB702	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB703	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB704	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB705	RBLN-0037CEZZ	R	Ferrite Bead	AB
FB706	RBLN-0037CEZZ	R	Ferrite Bead	AB
J402	QTANJ0639CEZZ	R	Jack	AL
P201	QPLGN0261CEZZ	R	Plug, 2pin	AB
P202	QPLGN2059REZZ	R	Plug, 20pin	AE
P203	QPLGN2059REZZ	R	Plug, 20pin	AE
P204	QPLGZ0360GEZZ	R	Plug, 3pin	AB
P205	QPLGN2059REZZ	R	Plug, 20pin	AE
P301	QPLGN0559REZZ	R	Plug, 5pin	AB
P302	QPLGN0659REZZ	R	Plug, 6pin (M)	AC
P303	QPLGN0561CEZZ	R	Plug, 5pin (SL)	AB
P401	QPLGN0561CEZZ	R	Plug, 5pin (AV)	AB
P601	QPLGN0160FJZZ	R	Plug, 1pin	AD
P602	QPLGN0361CEZZ	R	Plug, 3pin (H)	AB
P701	QPLGN0269GEZZ	R	Plug, 2pin (SV)	AB
P702	QPLGN0304CEZZ	R	Plug, 3pin(AA)	AB
P703	QPLGN0761CEZZ	R	Plug, 7pin (VM)	AD
P1001	QPLGN0761CEZZ	R	Plug, 7pin (FR)	AD
P1002	QPLGN0461CEZZ	R	Plug, 4pin (BC)	AB
P2801	QPLGN1159REZZ	R	Plug, 11pin (TX) (29RN5/29RN5RU)	AC
SC601	QTiPM0083CEZZ	R	Tip (L2)	AB
	PRDAR0244PEFW	R	Heat Sink	AN
	PRDAR0245PEFW	R	Heat Sink	AH
	PRDAR0246PEFW	R	Heat Sink	AN
	PRDAR0250PEFW	R	Heat Sink	AM
	PRDAR0253PEFW	R	Heat Sink	AE
	LHLDW1064PEKZ	R	Holder	AC

End of Main Unit

PWB-B DUNTK9483FMV0/V1
MAIN 2 UNIT(Continued)

Ref. No.	Part No.	★	Description	Code
INTEGRATED CIRCUITS				
IC201	VHiTDA8375A-3	R	TDA8375AH/N3	BA
IC202	VHiKA7808Pi-1	R	KIA7808PI	AF
IC301	VHiM52317SP-1	R	M52317SP	AK
IC401	VHiTDA4671/-1	R	I.C.	AZ
IC801	VHiTDA4665T-1	R	TDA4665T/V4	AN
IC901	VHiTDA8395T-1	R	TDA8395T/N2	AR
IC1001	RH-iX3007CEZZ	R	I.C.	AZ
IC1002	VHiS24C04A/-1	R	S-24C04AFJ-TB	AL
IC1003	VHiKiA7045P-1	R	KIA7045P	AD
IC1004	VHiKA7805Pi-1	R	KIA7805PI	AE
TRANSISTORS				
Q201	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q202	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q203	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q204	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q401	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q402	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q403	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q601	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q602	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q603	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q1001	VS2SA1037KQ-1	R	2SA1037KQ	AA
Q1002	VS2SC2412KQ-1	R	2SC2412KQ	AA
Q1004	VS2SC2412KQ-1	R	2SC2412KQ	AA
DIODES				
D201	VHD1SS152//-1	R	1SS152	AB
D204	RH-DX0475CEZZ	R	Diode	AB
D1005	RH-EX0633GEZZ	R	Zener Diode	AA
D1006	RH-EX0633GEZZ	R	Zener Diode	AA
D1009	RH-EX0619GEZZ	R	Zener Diode	AA
D1010	RH-EX0619GEZZ	R	Zener Diode	AA
D1011	RH-EX0619GEZZ	R	Zener Diode	AA
D1012	RH-EX0619GEZZ	R	Zener Diode	AA
D1013	RH-EX0619GEZZ	R	Zener Diode	AA
D1014	RH-EX0619GEZZ	R	Zener Diode	AA
D1015	RH-EX0619GEZZ	R	Zener Diode	AA
D1016	RH-EX0619GEZZ	R	Zener Diode	AA
D1017	RH-EX0619GEZZ	R	Zener Diode	AA
D1020	RH-DX0475CEZZ	R	Diode	AB
D1023	RH-EX0619GEZZ	R	Zener Diode	AA
D1024	RH-EX0619GEZZ	R	Zener Diode	AA
D1025	RH-EX0619GEZZ	R	Zener Diode	AA
D1026	RH-EX0619GEZZ	R	Zener Diode	AA
D1027	RH-EX0619GEZZ	R	Zener Diode	AA
D1028	RH-EX0619GEZZ	R	Zener Diode	AA
D1031	RH-DX0475CEZZ	R	Diode	AB
D1033	RH-EX0619GEZZ	R	Zener Diode	AA
D1034	RH-EX0619GEZZ	R	Zener Diode	AA
D1035	RH-EX0619GEZZ	R	Zener Diode	AA
D1038	RH-DX0475CEZZ	R	Diode	AB
D1039	RH-EX0619GEZZ	R	Zener Diode	AA
D1040	RH-EX0619GEZZ	R	Zener Diode	AA
D1041	RH-DX0475CEZZ	R	Diode	AB
D1043	RH-EX0619GEZZ	R	Zener Diode	AA
CRYSTALS				
X801	RCRSB0008PEZZ	R	Crystal, 4.43MHz	AH
X802	RCRSB0009PEZZ	R	Crystal, 3.58MHz	AL
COILS				
L201	VP-XF4R7K0000	R	Peaking 4.7µH	AB
L205	VP-XF120K0000	R	Peaking 12µH	AB
L301	VP-XF120K0000	R	Peaking 12µH	AB
L801	VP-XF1R8K0000	R	Peaking 1.8µH	AB
L802	VP-XF1R8K0000	R	Peaking 1.8µH	AB
L803	VP-XF1R8K0000	R	Peaking 1.8µH	AB
L1001	VP-XF1R0K0000	R	Peaking 1µH	AB
FILTERS				
CF201	RFiLC0011PEZZ	R	Filter	AH
CF202	RFiLC0006PEZZ	R	Filter	AF
CF203	RFiLC0004PEZZ	R	Filter	AE
CF204	RFiLC0228CEZZ	R	Filter	AF
CF301	RFiLC0008PEZZ	R	Filter	AF
CF302	RFiLC0010PEZZ	R	Filter	AF
CF303	RFiLC0007PEZZ	R	Filter	AF
CF304	RFiLA0072CEZZ	R	Filter	AE
CF305	RFiLC0009PEZZ	R	Filter	AF
CF1001	RFiLA0084CEZZ	R	Filter	AE
SF201	RFiLC0015PEZZ	R	Surface Accoustic Wave Filter	AR
TRANSFORMERS				
T201	RCilD0004PEZZ	R	Detection Coil	AF

Ref. No.	Part No.	★	Description			Code
CAPACITORS						
C201	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C202	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C203	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C204	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C205	VCCCCY1HH100D	R	10p	50V	Ceramic	AA
C206	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C207	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C208	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C209	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C210	VCFYFA1HA474J	R	0.47	50V	M.Polypro	AC
C211	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C212	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C213	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C214	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C215	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C216	VCFYFA1HA334J	R	0.33	50V	M.Polypro	AB
C217	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C218	VCEAGA1AW477M	R	470	10V	Electrolytic	AC
C219	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C301	VCKYCY1HB332K	R	3300p	50V	Ceramic	AA
C302	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C303	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C304	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C305	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C306	VCCCCY1HH680J	R	68p	50V	Ceramic	AA
C307	VCCCPA1HH330J	R	33p	50V	Ceramic	AA
C308	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C309	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C310	VCCCCY1HH180J	R	18p	50V	Ceramic	AA
C311	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C313	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C314	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C315	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C317	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C401	VCKYCY1HF473Z	R	0.047	50V	Ceramic	AA
C402	VCKYCY1HF473Z	R	0.047	50V	Ceramic	AA
C403	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C404	VCEAGA1AW107M	R	100	10V	Electrolytic	AB
C405	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C406	VCEAGA1AW477M	R	470	10V	Electrolytic	AC
C407	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C408	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C409	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C410	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C411	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C412	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C413	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C414	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA

PWB-B DUNTK9483FMV0/V1 MAIN 2 UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
C415	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C416	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C501	VCFYFA1HA104J	R	0.1	50V	M.Polypro	AA
C502	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C503	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C601	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C602	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C603	VCKYCY1HB222K	R	2200p	50V	Ceramic	AA
C604	VCKYCY1HB472K	R	4700p	50V	Ceramic	AA
C605	VCEAGA1HW105M	R	1	50V	Electrolytic	AC
C606	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C607	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C608	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C609	VCCCCY1HH180J	R	18p	50V	Ceramic	AA
C801	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C802	VCKYCY1HB472K	R	4700p	50V	Ceramic	AA
C803	VCCCCY1HH180J	R	18p	50V	Ceramic	AA
C804	VCCCCY1HH180J	R	18p	50V	Ceramic	AA
C805	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C806	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C807	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C808	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C809	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C810	VCKYCY1HB102K	R	1000p	50V	Ceramic	AA
C811	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C812	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C813	VCKYCY1HF223Z	R	0.022	50V	Ceramic	AB
C901	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C902	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C903	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C904	VCKYCY1CF224Z	R	0.22	16V	Ceramic	AA
C1003	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C1004	VCKYCY1HB221K	R	220p	50V	Ceramic	AA
C1005	VCKYCY1HF103Z	R	0.01	50V	Ceramic	AA
C1006	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1007	VCEAGA1HW105M	R	1	50V	Electrolytic	AC
C1008	VCEAGA1HW105M	R	1	50V	Electrolytic	AC
C1010	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1011	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1012	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1013	VCCCCY1HH220J	R	22p	50V	Ceramic	AA
C1015	VCFYFA1HA334J	R	0.33	50V	M.Polypro	AB
C1016	VCKYCY1EF104Z	R	0.1	25V	Ceramic	AA
C1017	VCEAGA1AW477M	R	470	10V	Electrolytic	AC
C1018	VCEAGA1HW105M	R	1	50V	Electrolytic	AC
C1019	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1042	VCCCCY1HH101J	R	100p	50V	Ceramic	AA
C1043	VCCCCY1HH100D	R	10p	50V	Ceramic	AA

RESISTORS

R201	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R202	VRS-CY1JF682J	R	6.8k	1/16W	Metal Oxide	AA
R203	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R204	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R205	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R206	VRS-CY1JF122J	R	1.2k	1/16W	Metal Oxide	AA
R207	VRS-CY1JF391J	R	390	1/16W	Metal Oxide	AA
R208	VRS-CY1JF102J	R	1k	1/16W	Metal Oxide	AA
R209	VRS-CY1JF181J	R	180	1/16W	Metal Oxide	AA
R210	VRD-RA2BE4R7J	R	4.7	1/8W	Carbon	AA
R211	VRS-CY1JF560J	R	56	1/16W	Metal Oxide	AA
R212	VRS-CY1JF182J	R	1.8k	1/16W	Metal Oxide	AA
R213	VRS-CY1JF181J	R	180	1/16W	Metal Oxide	AA
R214	VRS-CY1JF221J	R	220	1/16W	Metal Oxide	AA
R215	VRS-CY1JF470J	R	47	1/16W	Metal Oxide	AA
R216	VRS-CY1JF471J	R	470	1/16W	Metal Oxide	AA
R217	VRD-RA2BE2R2J	R	2.2	1/8W	Carbon	AA
⚠ R218	RR-XZ0080CEZZ	R	4.7	1/2W	Fuse Resistor	AB
R219	VRS-CY1JF820J	R	82	1/16W	Metal Oxide	AA
R220	VRS-CY1JF181J	R	180	1/16W	Metal Oxide	AA
R301	VRS-CY1JF102J	R	1k	1/16W	Metal Oxide	AA
R302	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R303	VRS-CY1JF271J	R	270	1/16W	Metal Oxide	AA
R304	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R305	VRS-CY1JF821J	R	820	1/16W	Metal Oxide	AA
R306	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R307	VRS-CY1JF681J	R	680	1/16W	Metal Oxide	AA
R308	VRS-CY1JF102J	R	1k	1/16W	Metal Oxide	AA
R309	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R311	VRS-CY1JF102J	R	1k	1/16W	Metal Oxide	AA
R318	VRS-CY1JF100J	R	10	1/16W	Metal Oxide	AA
R401	VRS-CY1JF470J	R	47	1/16W	Metal Oxide	AA
R402	VRS-CY1JF331J	R	330	1/16W	Metal Oxide	AA
R403	VRS-CY1JF471J	R	470	1/16W	Metal Oxide	AA
R404	VRS-CY1JF471J	R	470	1/16W	Metal Oxide	AA
R406	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R407	VRS-CY1JF122J	R	1.2k	1/16W	Metal Oxide	AA
R408	VRS-CY1JF392J	R	3.9k	1/16W	Metal Oxide	AA
R410	VRD-RM2HD151J	R	150	1/2W	Carbon	AA
R411	VRS-CY1JF104J	R	100k	1/16W	Metal Oxide	AA
R412	VRS-CY1JF102J	R	1k	1/16W	Metal Oxide	AA
R413	VRS-CY1JF394J	R	390k	1/16W	Metal Oxide	AA
R414	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R415	VRS-CY1JF5R6J	R	5.6	1/16W	Metal Oxide	AA
R416	VRS-CY1JF100J	R	10	1/16W	Metal Oxide	AA
R417	VRS-CY1JF223J	R	22k	1/16W	Metal Oxide	AA
R418	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R419	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R420	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R501	VRS-CY1JF393F	R	39k	1/16W	Metal Oxide	AA
R601	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R602	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R603	VRD-RM2HD151J	R	150	1/2W	Carbon	AA
R604	VRS-CY1JF330J	R	33	1/16W	Metal Oxide	AA
R605	VRS-CY1JF273J	R	27k	1/16W	Metal Oxide	AA
R606	VRS-CY1JF153J	R	15k	1/16W	Metal Oxide	AA
R607	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R608	VRS-CY1JF182J	R	1.8k	1/16W	Metal Oxide	AA
R609	VRS-CY1JF1R0J	R	1	1/16W	Metal Oxide	AA
R611	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R801	VRS-CY1JF104J	R	100k	1/16W	Metal Oxide	AA
R802	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R803	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R804	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R805	VRS-CY1JF100J	R	10	1/16W	Metal Oxide	AA
R901	VRS-CY1JF100J	R	10	1/16W	Metal Oxide	AA
R1007	VRS-CY1JF563J	R	56k (29RN8)	1/16W	Metal Oxide	AA
R1012	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1013	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1014	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1015	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1016	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1017	VRS-CY1JF472J	R	4.7k	1/16W	Metal Oxide	AA
R1018	VRS-CY1JF222J	R	2.2k	1/16W	Metal Oxide	AA
R1023	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1024	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1025	VRS-CY1JF103J	R	10k	1/16W	Metal Oxide	AA
R1026	VRS-CY1JF102J	R	1k	1/16W	Metal Oxide	AA
R1029	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1030	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1031	VRS-CY1JF562J	R	5.6k	1/16W	Metal Oxide	AA
R1032	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1033	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1034	VRS-CY1JF563J	R	56k	1/16W	Metal Oxide	AA
R1036	VRS-CY1JF101J	R	100	1/16W	Metal Oxide	AA
R1037	VRS-CY1JF561J	R	560	1/16W	Metal Oxide	AA

PWB-B DUNTK9483FMV0/V1 MAIN 2 UNIT(Continued)

Ref. No.	Part No.	★	Description	Code
R1040	VRS-CY1JF562J	R	5.6k 1/16W Metal Oxide	AA
R1041	VRS-CY1JF103J	R	10k 1/16W Metal Oxide	AA
R1042	VRS-CY1JF562J	R	5.6k 1/16W Metal Oxide	AA
R1043	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1044	VRS-CY1JF472J	R	4.7k 1/16W Metal Oxide	AA
R1045	VRS-CY1JF103J	R	10k 1/16W Metal Oxide	AA
R1046	VRS-CY1JF102J	R	1k 1/16W Metal Oxide	AA
R1048	VRS-CY1JF153J	R	15k 1/16W Metal Oxide	AA
R1049	VRS-CY1JF822J	R	8.2k 1/16W Metal Oxide	AA
R1050	VRS-CY1JF103J	R	10k 1/16W Metal Oxide	AA
R1051	VRS-CY1JF561J	R	560 1/16W Metal Oxide	AA
R1052	VRS-CY1JF561J	R	560 1/16W Metal Oxide	AA
R1053	VRS-CY1JF561J	R	560 1/16W Metal Oxide	AA
R1054	VRS-CY1JF472J	R	4.7k 1/16W Metal Oxide	AA
R1055	VRS-CY1JF472J	R	4.7k 1/16W Metal Oxide	AA
R1056	VRS-CY1JF472J	R	4.7k 1/16W Metal Oxide	AA
R1057	VRS-CY1JF472J	R	4.7k 1/16W Metal Oxide	AA
R1058	VRS-CY1JF562J	R	5.6k 1/16W Metal Oxide	AA
R1059	VRS-CY1JF392J	R	3.9k 1/16W Metal Oxide	AA
R1061	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1062	VRS-CY1JF103J	R	10k 1/16W Metal Oxide	AA
R1063	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1064	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1065	VRS-CY1JF392J	R	3.9k 1/16W Metal Oxide	AA
R1066	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1067	VRS-CY1JF682J	R	6.8k 1/16W Metal Oxide	AA
R1068	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1069	VRS-CY1JF392J	R	3.9k 1/16W Metal Oxide	AA
R1070	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1071	VRS-CY1JF682J	R	6.8k 1/16W Metal Oxide	AA
R1072	VRS-CY1JF102J	R	1k 1/16W Metal Oxide	AA
R1073	VRS-CY1JF102J	R	1k 1/16W Metal Oxide	AA
R1074	VRS-CY1JF101J	R	100 1/16W Metal Oxide (29RN5/29RN5RU)	AA
R1076	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1077	VRD-RM2HD470J	R	47 1/2W Carbon	AA
R1078	VRS-CY1JF333J	R	33k 1/16W Metal Oxide	AA
R1079	VRS-CY1JF332J	R	3.3k 1/16W Metal Oxide	AA
R1084	VRS-CY1JF563J	R	56k 1/16W Metal Oxide	AA
R1085	VRS-CY1JF563J	R	56k 1/16W Metal Oxide (29RN5/29RN5RU)	AA
R1086	VRS-CY1JF101J	R	100 1/16W Metal Oxide (29RN8)	AA
R1089	VRS-CY1JF102J	R	1k 1/16W Metal Oxide	AA
R1090	VRD-RA2BE102J	R	1k 1/8W Carbon	AA
R1092	VRS-CY1JF682J	R	6.8k 1/16W Metal Oxide	AA
R1094	VRD-RM2HD1R5J	R	1.5 1/2W Carbon	AA
R1095	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1096	VRS-CY1JF101J	R	100 1/16W Metal Oxide	AA
R1099	VRS-CY1JF102J	R	1k 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

P801	QPLGN0542CEZZ	R	Plug, 5pin (K)	AB
SC202	QSOCZ2050CEZZ	R	Socket, 20pin	AF
SC203	QSOCZ2050CEZZ	R	Socket, 20pin	AF
SC204	QSOCZ0360GEZZ	R	Socket, 3pin	AC
SC205	QSOCZ2050CEZZ	R	Socket, 20pin	AF
SLD201	PSLDM0254PEFW	R	Shield	AE
SLD202	PSLDM0255PEFW	R	Shield	AD
SLD1001	PSLDM0244PEFW	R	Shield	AD
SLD1002	PSLDM0245PEFW	R	Shield	AD

End of Main 2 Unit

PWB-C DUNTK9486WEV0 CRT UNIT

Ref. No.	Part No.	★	Description	Code

INTEGRATED CIRCUITS

IC851	VHiTDA6107Q-1	R	I.C.	AP

DIODES

D851	RH-EX0623GEZZ	R	Zener Diode	AA
D852	VHD1SS244//-1	R	1SS244	AB
D853	VHD1SS244//-1	R	1SS244	AB
D854	VHD1SS244//-1	R	1SS244	AB
VA851	RH-VX0050CEZZ	R	Varistor	AE
VA852	RH-VX0050CEZZ	R	Varistor	AE

COIL

L851	VP-CF681K0000	R	Peaking 680µH	AB

CAPACITORS

C852	VCFYSB2EB224K	R	0.22	250V	M.Polypro	AD
⚠ C854	RC-KZ0153CEZZ	R	1000p	1.5kV	Ceramic	AB
C855	VCEAGA2EW106M	R	10	250V	Electrolytic	AC
C857	VCKYPA1HB391K	R	390p	50V	Ceramic	AA
C858	VCKYPA1HB391K	R	390p	50V	Ceramic	AA
C859	VCKYPA1HB391K	R	390p	50V	Ceramic	AA
C866	VCEAGA2EW106M	R	10	250V	Electrolytic	AC

RESISTORS

R851	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R852	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R853	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R855	VRD-RM2HD272J	R	2.7k	1/2W	Carbon	AA
R861	VRD-RM2HD272J	R	2.7k	1/2W	Carbon	AA
R867	VRD-RM2HD272J	R	2.7k	1/2W	Carbon	AA
R875	VRD-RA2BE560J	R	56	1/8W	Carbon	AA
R876	VRD-RA2BE560J	R	56	1/8W	Carbon	AA
R877	VRD-RA2BE560J	R	56	1/8W	Carbon	AA

MISCELLANEOUS PARTS

J2	QCNW-2220PEZZ	R	Connecting Cord	AC
J3	QCNW-2221PEZZ	R	Connecting Cord	AC
P851	QPLGN0361CEZZ	R	Plug, 3pin (H)	AB
P852	QPLGN0561CEZZ	R	Plug, 5pin (K)	AB
⚠ SC851	QSOCV0919CEZZ	R	CRT Socket, 9pin	AH
TP854	QTiPM0083CEZZ	R	Tip	AB
TP855	QTiPM0083CEZZ	R	Tip	AB
	PRDAR0248PEFW	R	Heat Sink	AF
	LX-BZ3096CEFD	R	Screw	AA

End of CRT Unit

PWB-D DUNTK9480FMV0 FRONT UNIT

Ref. No.	Part No.	★	Description			Code
TRANSISTORS						
Q1101	VS2SC1815GW-1	R	2SC1815GW			AB
DIODES						
D1101	RH-PX0003PEZZ	R	Photo Diode			AF
D1102	RH-PX0274CEZZ	R	Photo Diode			AC
PACKAGED CIRCUIT						
PR750	RMPTP0085CEZZ	R	Packaged Circuit			AL
CAPACITORS						
C752	VCFYSB2EB224K	R	0.22	250V	M.Polypro	AD
C1101	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
RESISTORS						
R751	VRD-RM2HD391J	R	390	1/2W	Carbon	AA
R752	VRW-KP41CR82K	R	0.82	15W	Cement	AG
R753	VRW-KP41CR82K	R	0.82	15W	Cement	AG
R1101	VRD-RA2BE273J	R	27k	1/8W	Carbon	AA
R1102	VRD-RA2BE822J	R	8.2k	1/8W	Carbon	AA
R1103	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R1104	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R1105	VRD-RA2BE391J	R	390	1/8W	Carbon	AA
R1106	VRD-RA2BE122J	R	1.2k	1/8W	Carbon	AA
R1108	VRD-RA2BE331J	R	330	1/8W	Carbon	AA
R1109	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1110	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
SWITCHES						
⚠ S750	QSW-P0588CEZZ	R	Switch			AP
S1101	QSW-K0079GEZZ	R	Switch, CH-Up			AB
S1102	QSW-K0079GEZZ	R	Switch, CH-Down			AB
S1103	QSW-K0079GEZZ	R	Switch, VOL-Up			AB
S1104	QSW-K0079GEZZ	R	Switch, VOL-Down			AB
S1105	QSW-K0079GEZZ	R	Switch, PRESET			AB
MISCELLANEOUS PARTS						
J301	QJAKE0143CEZZ	R	Jack, R-IN			AG
J302	QJAKE0145CEZZ	R	Jack, L-IN			AF
J401	QJAKE0144CEZZ	R	Jack, VIDEO-IN			AF
P402	QPLGN0561CEZZ	R	Plug, 5pin (AV)			AB
P752	QPLGN0304CEZZ	R	Plug, 3pin (AA)			AB
P753	QPLGN0304CEZZ	R	Plug, 3pin (AB)			AB
P754	QPLGN0207CEZZ	R	Plug, 2pin (G)			AA
P1101	QPLGN0761CEZZ	R	Plug, 7pin (FR)			AD
RMC1101	RRMCU0227CEZZ	R	Remote Receiver			AK
	LHLDP1056PE00	R	Holder			AC
	PCLIC0002PEZZ	R	Clip			AB
	PZETV0030PEZZ	R	Insulator			AD

End of FRONT Unit

PWB-E DUNTK9481FMV0/V1 S-OUT UNIT

Ref. No.	Part No.	★	Description			Code
INTEGRATED CIRCUITS						
IC3301	VHiAN5275//-1	R	AN5275			AP
TRANSISTORS						
Q3301	VS2SC1815GW-1	R	2SC1815GW			AB
Q3302	VS2SC1815GW-1	R	2SC1815GW			AB
Q3303	VSKRC102M//-1	R	KRC102M			AA
Q3304	VSKRC102M//-1	R	KRC102M			AA
DIODES						
D3301	RH-DX0475CEZZ	R	Diode			AB
D3302	RH-DX0475CEZZ	R	Diode			AB
D3303	RH-DX0475CEZZ	R	Diode			AB
D3304	RH-DX0475CEZZ	R	Diode			AB
⚠ VA750	RH-VX0048CEZZ	R	Varistor			AE
COILS						
⚠ L750	RCiLF0031PEZZ	R	Coil			AR
L751	RCiLF0031PEZZ	R	Coil (29RN5RU/29RN5z)			AR
L752	RCiLF0041PEZZ	R	Coil (29RN5RU/29RN5z)			AP
CAPACITORS						
⚠ C750	RC-FZ012SGEZZ	R	22	AC250V	M.Polypro	AE
⚠ C751	RC-FZ016SCEZZ	R	Capacitor			AE
C3301	VCEAGA1HW107M	R	100	50V	Electrolytic	AC
C3302	VCEAGA1HW105M	R	1	50V	Electrolytic	AC
C3303	VCEAGA1HW336M	R	33	50V	Electrolytic	AB
C3304	VCEAGA1HW105M	R	1	50V	Electrolytic	AC
C3305	VCEAGA1HW107M	R	100	50V	Electrolytic	AC
C3307	VCKYPA1HB562K	R	5600p	50V	Ceramic	AA
C3309	VCKYPA1HB562K	R	5600p	50V	Ceramic	AA
C3310	VCEAGH1HW108M	R	1000	50V	Electrolytic	AE
C3311	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C3312	VCEAGH1HW108M	R	1000	50V	Electrolytic	AE
C3313	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C3314	VCEAGH1HW108M	R	1000	50V	Electrolytic	AE
C3315	VCEAGA1HW107M	R	100	50V	Electrolytic	AC
C3316	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C3319	VCEAGA1HW335M	R	3.3	50V	Electrolytic	AB
C3333	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C3334	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
C3336	VCEAGA1HW225M	R	2.2	50V	Electrolytic	AB
RESISTORS						
⚠ R750	VRC-UA2HG395K	R	3.9M	1/2W	Solid	AA
⚠ R754	VRW-KQ41C1R8K	R	1.8	15W	Cement	AG
R3301	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R3302	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R3303	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R3304	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R3305	VRD-RA2EE2R2J	R	2.2	1/4W	Carbon	AA
R3306	VRD-RA2EE2R2J	R	2.2	1/4W	Carbon	AA
R3308	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R3309	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R3310	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R3335	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R3336	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R3337	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R3339	VRD-RA2EE103J	R	10k	1/4W	Carbon	AA
R3342	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
MISCELLANEOUS PARTS						
⚠ F750	QFS-C5026CEZZ	R	Fuse, T5A/250V			BL

Ref. No.	Part No.	★	Description	Code

PWB-E DUNTK9481FMV0/V1 S-OUT UNIT(Continued)

MISCELLANEOUS PARTS

⚠ F750	QFS-C5026CEZZ	R	Fuse, T5A/250V	BL
⚠ FH751	QFSHD1013CEZZ	R	Fuse Holder	AC
⚠ FH752	QFSHD1014CEZZ	R	Fuse Holder	AC
P750	QPLGN0269GEZZ	R	Plug, 2pin (A)	AB
P751	QPLGN0304CEZZ	R	Plug, 3pin (AB)	AB
P3302	QPLGN0269GEZZ	R	Plug, 2pin (SV)	AB
P3304	QPLGN0861CEZZ	R	Plug, 8pin (FS)	AC
P3306	QPLGN0561CEZZ	R	Plug, 5pin (SL)	AB
	PRDAR0244PEFW	R	Heat Sink	AN
	LX-BZ3100CEFD	R	Screw	AA

——— End of S-OUT Unit ———

Ref. No.	Part No.	★	Description	Code

PWB-F RUNTK0008PEZZ/0009PEZZ MPX UNIT

INTEGRATED CIRCUITS

IC2301	VHiTDA9813T-1	V	TDA9813T	AY
IC2302	VHiTDA9840T-1	V	TDA9840T (29RN5/29RN5RU)	AS
IC2303	VHiSA7283G2-1	V	SA7283G2	
IC2304	VHiM5218AL/-1	V	M5218AL/	

TRANSISTORS

Q2301	VS2SC1906//1E	V	2SC1906	AC
Q2302	VS2SC1906//1E	V	2SC1906	AC

DIODES

D2301	VHDOF4076//-1	V	OF4076	AC
D2302	RH-DX0475CEZZ	V	Diode	AB
D2303	RH-EX0619GEZZ	J	Zener Diode (6.2V)	AA
D2304	RH-EX0619GEZZ	J	Zener Diode (6.2V)	AA

CRYSTALS

X2301	RCRSB0129GEZZ	J	Crystal, 10MHz (29RN5/29RN5RU)	
X2302	RCRSB0183GEZZ	J	Crystal, 8.192MHz	AM

COILS

L2301	VP-XF120K0000	V	Peaking 12µH	AB
L2303	VP-XF100K0000	V	Peaking 10µH (29RN5/29RN5RU)	AB
L2304	VP-XF100K0000	V	Peaking 10µH	AB
L2305	VP-XF6R8K0000	V	Peaking 6.8µH	AB
L2306	VP-XF6R8K0000	V	Peaking 6.8µH	AB
L2307	VP-XF6R8K0000	V	Peaking 6.8µH	AB
L2308	VP-XF6R8K0000	V	Peaking 6.8µH	AB
L2310	VP-XF100K0000	V	Peaking 10µH	AB
L2311	VP-XF6R8K0000	V	Peaking 6.8µH	AB
L2312	VP-XF6R8K0000	V	Peaking 6.8µH	AB

FILTERS

CF2301	RFiLC0063CEZZ	V	Filter (29RN5/29RN5RU)	AG
CF2302	RFiLC0061CEZZ	V	Filter (29RN5/29RN5RU)	AF
SF2301	RFiLC0016PEZZ	V	Filter (29RN5/29RN5RU)	AS
SF2301	RFiLC0020PEZZ	V	Filter (29RN8)	

TRANSFORMERS

T2301	RCiLD0231CEZZ	V	Transformer	AF
T2302	RCiLi0489CEZZ	V	Transformer (29RN5/29RN5RU)	AE

CAPACITORS

C2301	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2302	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2303	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2304	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2305	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
C2306	VCFYFA1HA224J	V	0.22	50V	M.Polypro	AA
C2307	VCEAGA1HW225M	V	2.2	50V	Electrolytic	AA
C2308	VCEAGA1CW226M	V	22	16V	Electrolytic (29RN5/29RN5RU)	AA
C2309	VCEAGA1CW226M	V	22	16V	Electrolytic (29RN5/29RN5RU)	AA
C2311	VCKYCY1HF103Z	V	0.01	50V	Ceramic (29RN5/29RN5RU)	AA

PWB-F RUNTK0008PEZZ/0009PEZZ MPX UNIT(Continued)

Ref. No.	Part No.	★			Description	Code
C2312	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2313	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2314	VCEAGA1HW225M	V	2.2	50V	Electrolytic	AA
C2315	VCEAGA1HW225M	V	2.2	50V	Electrolytic	AA
C2317	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
			(29RN5/29RN5RU)			
C2318	VCEAGA1AW107M	V	100	10V	Electrolytic	AA
			(29RN5/29RN5RU)			
C2319	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
			(29RN5/29RN5RU)			
C2320	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
			(29RN5/29RN5RU)			
C2321	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2323	VCKYCY1HB391K	V	390p	50V	Ceramic	AA
C2324	VCFYFA1HA104J	V	0.1	50V	M.Polypro	AA
C2325	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
C2326	VCCCCY1HH100D	V	10p	50V	Ceramic	AA
C2327	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
C2328	VCKYCY1HB221K	V	220p	50V	Ceramic	AA
C2329	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
C2330	VCKYCY1EF104Z	V	0.1	25V	Ceramic	AA
C2331	VCEAGA1HW105M	V	0.1	50V	Electrolytic	AA
C2332	VCKYCY1EF104Z	V	0.1	25V	Ceramic	AA
C2333	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2334	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
C2335	VCFYFA1HA334J	V	0.33	50V	M.Polypro	AA
C2336	VCKYCY1HF223Z	V	0.022	50V	Ceramic	AA
C2337	VCCCCY1HH101J	V	100p	50V	Ceramic	AA
C2338	VCCCCY1HH101J	V	100p	50V	Ceramic	AA
C2339	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2340	VCEAGA1CW107M	V	100	16V	Electrolytic	AA
			(29RN5/29RN5RU)			
C2341	VCEAGA1HW474M	V	0.47	50V	Electrolytic	AA
C2342	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2343	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
C2344	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2345	VCFYFA1HA104J	V	0.1	50V	M.Polypro	AA
C2346	VCFYFA1HA104J	V	0.1	50V	M.Polypro	AA
			(29RN5/29RN5RU)			
C2347	VCFYFA1HA334J	V	0.33	50V	M.Polypro	AA
C2348	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2349	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
			(29RN5/29RN5RU)			
C2350	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
			(29RN5/29RN5RU)			
C2351	VCKYCY1EF104Z	V	0.1	50V	Ceramic	AA
			(29RN5/29RN5RU)			
C2352	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2353	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2355	VCCCCY1HH181J	V	18p	50V	Ceramic	AA
			(29RN5/29RN5RU)			
C2356	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2357	VCEAGA1HW225M	V	2.2	50V	Electrolytic	AA
			(29RN5/29RN5RU)			
C2358	VCFYFA1HA334J	V	0.33	50V	M.Polypro	AA
C2359	VCFYFA1HA334J	V	0.33	50V	M.Polypro	AA
			(29RN5/29RN5RU)			
C2360	VCEAGA1HW225M	V	2.2	50V	Electrolytic	AA
			(29RN5/29RN5RU)			
C2361	VCKYCY1HF473Z	V	0.047	50V	Ceramic	AA
C2362	VCEAGA1CW106M	V	10	16V	Electrolytic	AA
C2363	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2364	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2365	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2366	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2367	VCKYCY1HB222K	V	2200p	50V	Ceramic	AA
C2368	VCKYCY1HB222K	V	2200p	50V	Ceramic	AA
C2369	VCKYCY1HB821K	V	820	50V	Ceramic	AA
C2370	VCKYCY1HB821K	V	820	50V	Ceramic	AA
C2371	VCEAGA1CW476M	V	47	16V	Electrolytic	AA
C2372	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
			(29RN5/29RN5RU)			
C2373	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
			(29RN5/29RN5RU)			
C2374	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C2375	VCCCCY1HH680J	V	68p	50V	Ceramic	AA
C2376	VCCCCY1HH680J	V	68p	50V	Ceramic	AA
C2377	VCQYTA1HM102J	V	1000p	50V	Mylar	AA
C2380	VCCCCY1HH100D	V	10p	50V	Ceramic	AA
C2381	VCKYCY1HB102K	V	1000p	50V	Ceramic	AA

RESISTORS

R2301	VRS-CY1JF222J	V	2.2k	1/16W	Metal Oxide	AA
R2302	VRS-CY1JF181J	V	180	1/16W	Metal Oxide	AA
R2303	VRS-CY1JF2R2J	V	2.2	1/16W	Metal Oxide	AA
R2304	VRS-CY1JF682J	V	6.8k	1/16W	Metal Oxide	AA
R2305	VRS-CY1JF331J	V	330	1/16W	Metal Oxide	AA
R2306	VRS-CY1JF471J	V	470	1/16W	Metal Oxide	AA
R2307	VRS-CY1JF561J	V	560	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2309	VRS-CY1JF562J	V	5.6k	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2310	VRS-CY1JF561J	V	560	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2311	VRS-CY1JF561J	V	560	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2312	VRS-CY1JF561J	V	560	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2317	VRS-CY1JF273J	V	27k	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2318	VRS-CY1JF101J	V	100	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2319	VRS-CY1JF101J	V	100	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2322	VRS-CY1JF273J	V	27k	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2323	VRS-CY1JF273J	V	27k	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2326	VRS-CY1JF471J	V	470	1/16W	Metal Oxide	AA
R2327	VRS-CY1JF103J	V	10k	1/16W	Metal Oxide	AA
R2328	VRS-CY1JF472J	V	4.7k	1/16W	Metal Oxide	AA
R2329	VRS-CY1JF331J	V	330	1/16W	Metal Oxide	AA
R2330	VRS-CY1JF103J	V	10k	1/16W	Metal Oxide	AA
R2334	VRS-CY1JF102J	V	1k	1/16W	Metal Oxide	AA
R2335	VRS-CY1JF101J	V	100	1/16W	Metal Oxide	AA
R2337	VRS-CY1JF223J	V	22k	1/16W	Metal Oxide	AA
R2338	VRS-CY1JF105J	V	1M	1/16W	Metal Oxide	AA
R2339	VRS-CY1JF684J	V	680k	1/16W	Metal Oxide	AA
R2340	VRS-CY1JF101J	V	100	1/16W	Metal Oxide	AA
R2341	VRS-CY1JF101J	V	100	1/16W	Metal Oxide	AA
R2342	VRS-CY1JF823J	V	82k	1/16W	Metal Oxide	AA
R2343	VRS-CY1JF823J	V	82k	1/16W	Metal Oxide	AA
R2344	VRS-CY1JF333J	V	33k	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2345	VRS-CY1JF103J	V	10k	1/16W	Metal Oxide	AA
R2348	VRS-CY1JF103J	V	10k	1/16W	Metal Oxide	AA
R2353	VRS-CY1JF333J	V	33k	1/16W	Metal Oxide	AA
			(29RN5/29RN5RU)			
R2355	VRS-CY1JF472J	V	4.7k	1/16W	Metal Oxide	AA
R2356	VRS-CY1JF104J	V	100k	1/16W	Metal Oxide	AA
R2357	VRS-CY1JF222J	V	2.2k	1/16W	Metal Oxide	AA
R2358	VRS-CY1JF222J	V	2.2k	1/16W	Metal Oxide	AA
R2359	VRS-CY1JF332J	V	3.3k	1/16W	Metal Oxide	AA
R2360	VRS-CY1JF332J	V	3.3k	1/16W	Metal Oxide	AA
R2361	VRS-CY1JF151J	V	150	1/16W	Metal Oxide	AA
R2362	VRS-CY1JF104J	V	100k	1/16W	Metal Oxide	AA
R2363	VRS-CY1JF104J	V	100k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

PWB-F RUNTK0008PEZZ/0009PEZZ MPX UNIT(Continued)

R2366	VRS-CY1JF103J	V	10k	1/16W	Metal Oxide		AA
R2367	VRS-CY1JF103J	V	10k	1/16W	Metal Oxide		AA
R2386	VRS-CY1JF472J	V	4.7k	1/16W	Metal Oxide		AA

MISCELLANEOUS PARTS

SC2301	QSOCN0698REZZ	V	Socket, 6pin (M)	AA
SC2302	QSOCN0598REZZ	V	Socket, 5pin (N)	AA
SLD2301	PSLDM0246PEFW	V	Shield	AA
SLD2302	PSLDM0256PEFW	V	Shield	AA
TP2301	QLUGP0102PEZZ	V	Lug (29RN5/29RN5RU)	AA
TP2302	QLUGP0102PEZZ	V	Lug (29RN5/29RN5RU)	AA

——— End of MPX Unit ———

Ref. No.	Part No.	★	Description	Code

PWB-G DUNTK9485FMV0/V1 TXT UNIT

INTEGRATED CIRCUITS

IC1802	RH-iX2451CEZZ	R	SAA5249P (29RN5c/29RN5z)	BB
IC1802	VHiSAA5249R-1	R	I.C. (29RN5RU)	BL

TRANSISTORS

Q1801	VS2SC1815GW-1	R	2SC1815GW	AB
Q1802	VS2SA1015Y/1E	R	2SA1015Y	AC
Q1803	VS2SC1815GW-1	R	2SC1815GW	AB

DIODES

D1801	RH-DX0475CEZZ	R	Diode	AB
D1802	RH-DX0475CEZZ	R	Diode	AB
D1803	RH-EX0619GEZZ	R	Zener Diode	AA
D1804	RH-EX0619GEZZ	R	Zener Diode	AA
D1805	RH-DX0475CEZZ	R	Diode	AB
D1806	RH-DX0475CEZZ	R	Diode	AB
D1807	RH-DX0475CEZZ	R	Diode	AB
D1808	RH-DX0475CEZZ	R	Diode	AB

CRYSTAL

X1801	RCRSB0006PEZZ	R	Crystal	AK

COILS

L1801	VP-DF100K0000	R	Peaking	10μH	AB
L1802	VP-XF1R0K0000	R	Peaking	1μH	AB
L1803	VP-DF100K0000	R	Peaking	10μH	AB

CAPACITORS

C1802	VCEAGA1AW107M	R	100	10V	Electrolytic	AB
C1803	VCEAGA1AW477M	R	470	10V	Electrolytic	AC
C1804	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1806	VCKYPA1HB102K	R	1000p	50V	Ceramic	AA
C1807	VCCCPA1HH150J	R	15p	50V	Ceramic	AA
C1808	VCCCPA1HH560J	R	56p	50V	Ceramic	AA
C1810	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1811	VCE9GA1HW105M	R	1	50V	Elect.(N.P.)	AB
C1812	VCQYTA1HM104J	R	0.1	50V	Mylar	AA
C1813	VCEAGA1AW107M	R	100	10V	Electrolytic	AB
C1814	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1815	VCKYPA1HB221K	R	220p	50V	Ceramic	AA

RESISTORS

R1801	VRD-RA2BE273J	R	27k	1/8W	Carbon	AA
R1808	VRD-RA2BE821J	R	820	1/8W	Carbon	AA
R1809	VRD-RA2BE152J	R	1.5k	1/8W	Carbon	AA
R1810	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R1811	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R1812	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R1813	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R1814	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1816	VRD-RA2BE472J	R	4.7k	1/8W	Carbon	AA
R1818	VRD-RA2BE122J	R	1.2k	1/8W	Carbon	AA
R1819	VRD-RA2BE272J	R	2.7k	1/8W	Carbon	AA
R1820	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R1822	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1823	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1827	VRD-RA2BE562J	R	5.6k	1/8W	Carbon	AA
R1828	VRD-RA2BE183J	R	18k	1/8W	Carbon	AA
R1829	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1830	VRD-RA2BE473J	R	47k	1/8W	Carbon	AA

Ref. No.	Part No.	★	Description	Code

PWB-G DUNTK9485FMV0/V1 TXT UNIT(Continued)

MISCELLANEOUS PARTS

SC1801	QSOCN1198REZZ	R	Socket, 11pin (TX)	AD
SLD1801	PSLDM0247PEFW	R	Shield	AE
SLD1802	PSLDM0257PEFW	R	Shield	AD

——— End of TXT Unit ———

PWB-H DUNTK9547WEW0 VM UNIT

TRANSISTORS

Q1401	VS2SA1837//-1	R	2SA1837	AF
Q1402	VS2SC4793//-1	R	2SC4793	AF
Q1403	VS2SC1815YW-1	R	2SC1815YW	AC
Q1404	VS2SA1015Y/1E	R	2SA1015Y	AC
Q1406	VS2SC1815YW-1	R	2SC1815YW	AC
Q1407	VS2SA1015Y/1E	R	2SA1015Y	AC
Q1408	VS2SC1815YW-1	R	2SC1815YW	AC
Q1409	VS2SC1815YW-1	R	2SC1815YW	AC
Q1410	VS2SC1815YW-1	R	2SC1815YW	AC
Q1411	VS2SC1815YW-1	R	2SC1815YW	AC
Q1412	VS2SK30AG//2E	R	2SK30AG	AD
Q1413	VS2SA1015Y/1E	R	2SA1015Y	AC

DIODES

D1401	RH-DX0475CEZZ	R	Diode	AB
D1402	RH-DX0475CEZZ	R	Diode	AB
D1403	RH-DX0086TAZZ	R	Diode	AC
D1404	RH-DX0086TAZZ	R	Diode	AC
D1405	RH-DX0475CEZZ	R	Diode	AB
D1406	RH-DX0475CEZZ	R	Diode	AB
D1407	RH-DX0475CEZZ	R	Diode	AB
D1408	RH-DX0475CEZZ	R	Diode	AB
D1409	RH-DX0475CEZZ	R	Diode	AB

COILS AND TRANSFORMERS

L1402	VP-XF330K0000	R	Pwaking 33μH	AB

CAPACITORS

C1401	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1402	VCKYPA2HB472K	R	4700p	500V	Ceramic	AB
C1403	VCKYPA2HB472K	R	4700p	500V	Ceramic	AB
C1404	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1405	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1406	VCEAGA2CW106M	R	10	160V	Electrolytic	AC
C1407	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1408	VCCSPA2HL560K	R	56p	500V	Ceramic	AA
C1409	VCEAGA2AW226M	R	22	100V	Electrolytic	AC
C1413	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1414	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1415	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1416	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C1417	VCCSPA1HL680J	R	68p	50V	Ceramic	AA
C1418	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1419	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1420	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1421	VCCSPA1HL120J	R	12p	50V	Ceramic	AA
C1422	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1423	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C1424	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C1425	VCCCPA1HH820J	R	82p	50V	Ceramic	AA
C1427	VCEAGA1CW227M	R	220	16V	Electrolytic	AC

RESISTORS

R1402	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R1403	VRD-RA2EE560J	R	56	1/4W	Carbon	AA
R1404	VRN-VV3AB2R7J	R	2.7	1W	Metal Film	AA
R1405	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1406	VRD-RA2BE100J	R	10	1/8W	Carbon	AA
R1407	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R1408	VRD-RA2BE683J	R	68k	1/8W	Carbon	AA
R1409	VRD-RA2BE123J	R	12k	1/8W	Carbon	AA
R1410	VRD-RM2HD121J	R	120	1/2W	Carbon	AA
R1411	VRD-RA2BE820J	R	82	1/8W	Carbon	AA
R1412	VRD-RA2BE683J	R	68k	1/8W	Carbon	AA

PWB-H DUNTK9547WEW0 VM UNIT(Continued)

Ref. No.	Part No.	★			Description	Code
R1413	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R1414	VRD-RA2EE560J	R	56	1/4W	Carbon	AA
R1415	VRD-RA2EE2R7J	R	2.7	1/4W	Carbon	AA
R1416	VRS-VV3DB221J	R	220	2W	Metal Oxide	AA
R1417	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1418	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1419	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R1420	VRD-RA2BE102J	R	1k	1/8W	Carbon	AA
R1421	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1422	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R1423	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R1424	VRD-RA2BE151J	R	150	1/8W	Carbon	AA
R1425	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R1426	VRD-RA2BE104J	R	100k	1/8W	Carbon	AA
R1427	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1428	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1429	VRD-RA2BE681J	R	680	1/8W	Carbon	AA
R1430	VRD-RA2BE103J	R	10k	1/8W	Carbon	AA
R1431	VRD-RA2BE153J	R	15k	1/8W	Carbon	AA
R1432	VRD-RA2BE470J	R	47	1/8W	Carbon	AA
R1433	VRD-RA2BE151J	R	150	1/8W	Carbon	AA
R1434	VRD-RA2BE561J	R	560	1/8W	Carbon	AA
R1435	VRD-RA2BE393J	R	39k	1/8W	Carbon	AA
R1436	VRD-RM2HD471J	R	470	1/2W	Carbon	AA
R1437	VRD-RA2BE101J	R	100	1/8W	Carbon	AB
R1438	VRD-RA2BE471J	R	470	1/8W	Carbon	AA
R1439	VRD-RA2BE392J	R	3.9k	1/8W	Carbon	AA
R1440	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R1441	VRD-RA2BE223J	R	22k	1/8W	Carbon	AA
R1442	VRD-RA2BE222J	R	2.2k	1/8W	Carbon	AA
R1443	VRD-RA2BE682J	R	6.8k	1/8W	Carbon	AA
R1444	VRD-RA2BE822J	R	8.2k	1/8W	Carbon	AA
R1447	VRD-RA2BE221J	R	220	1/8W	Carbon	AA
R1449	VRD-RA2BE100J	R	10	1/8W	Carbon	AA

MISCELLANEOUS PARTS

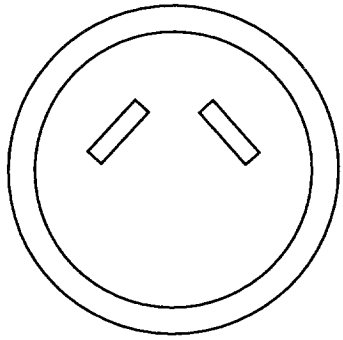
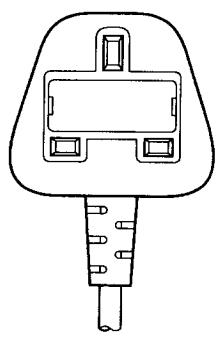
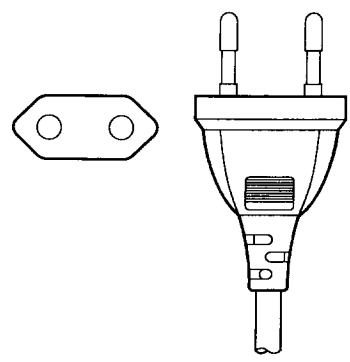
Ref. No.	Part No.	★	Description	Code
CN402	QCNW-2183PEZZ	R	Connecting Cord	AE
CN703	QCNW-2204PEZZ	R	Connecting Cord	AF
CN752	QCNW-2185PEZZ	R	Connecting Cord	AF
CN753	QCNW-2186PEZZ	R	Connecting Cord	AF
CN851	QCNW-2187PEZZ	R	Connecting Cord	AG
CN852	QCNW-2188PEZZ	R	Connecting Cord	AE
CN1101	QCNW-2184PEZZ	R	Connecting Cord	AF
CN3302	QCNW-2198PEZZ	R	Connecting Cord	AH
CN3306	QCNW-2197PEZZ	R	Connecting Cord	AH
FB1401	RBLN-0020CEZZ	R	Ferrite Bead	AB
P1401	QPLGN0261CEZZ	R	Plug, 2pin (PU)	AB
P1402	QPLGN0761CEZZ	R	Plug, 7pin (VM)	AD
	PRDAR0083PEFW	R	Heat Sink	AD
	PRDAR0083PEFW	R	Heat Sink	AD

End of VM Unit

MISCELLANEOUS PARTS

	Part No.	★	Description	Code
⚠	QACCB5003PEZZ	R	AC Cord (29RN8)	AY
⚠	QACCL3025CESA	R	AC Cord (29RN5z)	AR
⚠	QACCZ2008PEZZ	R	AC Cord (29RN5c/29RN5RU)	AM
	LHLDK0005PE00	R	AC Cord Holder	AC
	QCNW-2193PEZZ	R	Connecting Cord	AK
	QCNW-2195PEZZ	R	Connecting Cord	AK
	VSP0010PBS98A	R	Speaker	AV
	XTASD30P12000	R	LED DEC. Fix Screw, x1	AA
	XTASD40P16000	R	Speaker Fix Screw, x4	AA

End of Miscellaneous Parts

MODEL	29RN5z	29RN8	29RN5c	29RN5RU
DESTINATION	NEW ZEALAND	HONG KONG	SINGAPORE	RUSSIA
AC CORD	QACCL3025CESA 	QACCB5003PEZZ 	QACCZ2008PESA 	

SUPPLIED ACCESSORIES

Ref. No.	Part No.	★	Description	Code
	ACCESSORIES			
	RRMCG1385PESA	R	Infrared R/C Unit (29RN5/29RN5RU)	AU
	RRMCG1384PESA	R	Infrared R/C Unit (29RN8)	AV
	TINS-6235PEZZ	R	Operation Manual (29RN5c/29RN5z)	AG
	TINS-6302PEN1	R	Operation Manual (29RN5RU)	AH
	TINS-6303PEZZ	R	Operation Manual (29RN8)	AH
	ACCESSORIES (NOT REPLACEMENT ITEM)			
	TCAUA0002PEZZ	-	Caution Card	—

End of Accessories

PACKING PARTS

< Not Replacement Parts >

Ref. No.	Part No.	★	Description	Code
	SPAKC6307PEZZ	R	Packing Case (29RN5c/29RN5z)	BD
	SPAKC6297PEZZ	R	Packing Case (29RN5RU)	BD
	SPAKC6298PEZZ	R	Packing Case (29RN8)	BD
	SPAKX2652PEZZ	R	Buffer Material	AY
	SSAKA0002PEZZ	R	Polyethylene Bag	AA
	SSAKH0018PEZZ	R	Polyethylene Bag	AM

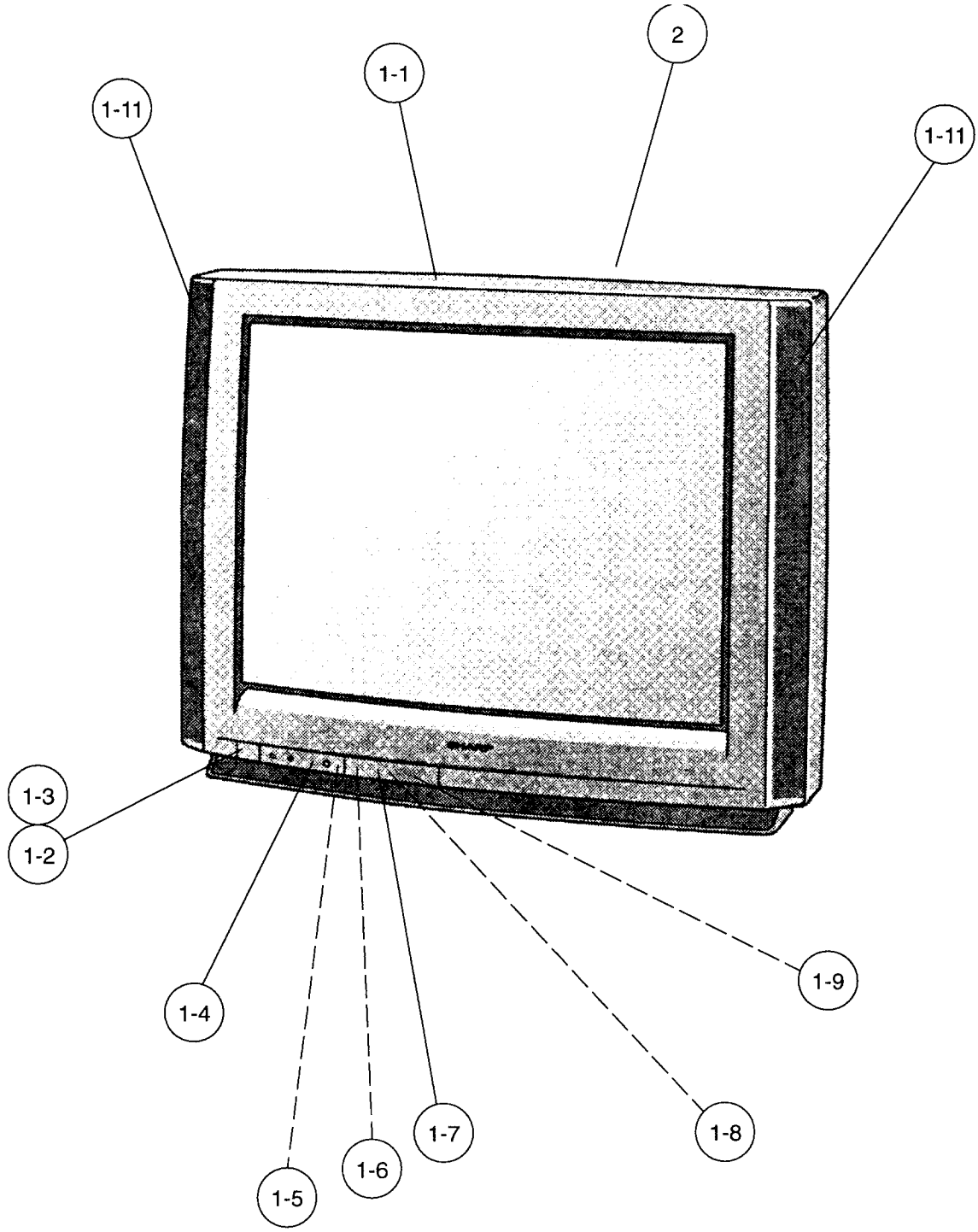
End of Packing Parts

CABINET PARTS

Ref. No.	Part No.	★	Description	Code
1	CCABA2439WEV0	R	Front Cabimet Ass'y (29RN5/29RN5RU)	BL
1	CCABA2440WEV0	R	Front Cabimet Ass'y (29RN8)	BL
1-1	*Not Available*	-	Front Cabinet	--
1-2	JBTN-0269PESA	R	Power Button	AF
1-3	MSPRC0005PEFW	R	Power Button Spring	AB
1-4	GCOVA0086PESA	R	R/C, LED Cover	AD
1-5	HINDP0221PEZZ	R	Indication Plate for JACK	AD
1-6	HINDP0224PEZZ	R	Indication Plate for Button	AE
1-7	GDORF0165PESA	R	Door	AG
1-8	PKAI-0002PE00	R	Door Latch	AG
1-9	GCOVA0082PEZZ	R	Cover in Door	AC
1-10	HBDGB3120CESA	R	SHARP Badge	AG
1-11	*Not Available*	R	Speaker Punching, x 2	--
2	CCABB2346WEV0	R	Rear Cabimet Ass'y	BL

End of Cabinet Parts

EXPLODED VIEW



29RN5
29RN5RU
29RN8

SHARP

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